

STIC Search Report Biotech-Chem Library

STIC Database Tracking Number 1997

TO: Ralph J Gitomer Location: 3d65 / 3c18

Art Unit: 1655

Friday, October 21, 2005

Case Serial Number: 10/783749

From: Noble Jarrell

Location: Biotech-Chem Library

Rem 1B71

Phone: 272-2556

Noble.jarrell@uspto.gov

Search Notes		
	 	<u>. </u>



=> d his full

(FILE 'HOME' ENTERED AT 08:42:26 ON 21 OCT 2005)

FILE 'REGISTRY' ENTERED AT 08:44:03 ON 21 OCT 2005

FILE 'HCAPLUS' ENTERED AT 08:44:03 ON 21 OCT 2005 L2 TRA L1 1- RN : 2 TERMS

FILE 'REGISTRY' ENTERED AT 08:44:04 ON 21 OCT 2005 L3 2 SEA ABB=ON PLU=ON L2

=> b hcap;d all l1 tot FILE 'HCAPLUS' ENTERED AT 08:44:44 ON 21 OCT 2005 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 21 Oct 2005 VOL 143 ISS 18 FILE LAST UPDATED: 20 Oct 2005 (20051020/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
L1
    ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN
AΝ
    2003:435210 HCAPLUS
DN
    138:398367
    Entered STN: 06 Jun 2003
ED
ΤI
    Test strips having a plurality of reaction zones and methods for using and
    manufacturing the same
TN
    Yu, Yeung Siu
    Lifescan, Inc., USA
U.S. Pat. Appl. Publ., 16 pp.
PA
SO
    CODEN: USXXCO
דת
    Patent
LА
    English
    ICM C12Q001-26
IC
INCL 435025000
CC
    9-1 (Biochemical Methods)
FAN.CNT 1
                                        APPLICATION NO.
    PATENT NO.
                       KIND
                              DATE
    -----
                              -----
                                         -----
                       ----
   US 2003104510
                        A1
                              20030605
                                        US 2001-11000
                                                               20011205 <--
```

```
US 6723500
                          B2
                                20040420
     NO 2002005804
                                20030606 NO 2002-5804
                         Α
                                                                  20021203 <--
     CA 2413533
                        AA
                                20030605 CA 2002-2413533
                                                                  20021204 <--
     EP 1318397
                         A1
                                20030611 EP 2002-258366
                                                                  20021204 <--
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
                                20030905 JP 2002-352801
     JP 2003247996
                         A2
                                                                  20021204 <--
     CN 1458526
                         Α
                                20031126
                                            CN 2002-151582
                                                                  20021204 <--
     US 2004161365
                         A1
                                20040819 US 2004-783749
                                                                   20040219 <--
PRAI US 2001-11000
                         Α
                                20011205 <--
CLASS
               CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
 US 2003104510 ICM
                       C12Q001-26
                 INCL 435025000
 US 2003104510
                 NCL
                       435/025.000
                 ECLA G01N033/52C; G01N033/558
                                                                            <--
                 ECLA G01N033/52C; G01N033/558
 EP 1318397
                                                                            <--
 US 2004161365
                 NCL
                        422/056.000
                 ECLA G01N033/52C; G01N033/558
AB
     Test strips, and methods for their manufacture and use in the determination of the
     concentration of at least one analyte in a physiol. sample are provided. The
     subject test strips have a plurality of reaction zones defined by a
     hydrophobic barrier. The reagent compns. present in each reaction zone
     may be the same or different. In addition, each reaction zone may have a
     sep. fluid channel, or two or more of the reaction zones may have sep.
     channels that merge into a single channel. In use, sample is applied to a
     subject test strip, a signal is detected and then related to the amount of
     analyte in the sample. Also provided are methods for manufacturing the subject
     test strips using thermal transfer technol. to apply the hydrophobic
     barrier. Finally, kits are provided for use in practicing the subject
     methods.
st
     test strip plurality reaction zone manufg
TT
     Enzymes, uses
     RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
        (Glucose oxidizing; test strips having a plurality of reaction zones
        and methods for using and manufacturing the same)
TТ
        (Hydrophobic; test strips having a plurality of reaction zones and
        methods for using and manufacturing the same)
ΙT
     Analytical apparatus
        (Test strips; test strips having a plurality of reaction zones and
        methods for using and manufacturing the same)
IT
    Apparatus
        (Thermal head; test strips having a plurality of reaction zones and
        methods for using and manufacturing the same)
IT
        (glucose; test strips having a plurality of reaction zones and methods
        for using and manufacturing the same)
TТ
     Enzymes, uses
     RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
        (oxidizing; test strips having a plurality of reaction zones and
        methods for using and manufacturing the same)
IT
    Absorption
     Biological materials
    Blood analysis
    Communication
     Composition
    Concentration (condition)
    Dyes
    Fluids
    Lances
    Measuring apparatus
    Oxidation
     Reaction
    Standard substances, analytical
```

```
Test kits
     Volume
        (test strips having a plurality of reaction zones and methods for using
        and manufacturing the same)
IT
     Enzymes, uses
     Reagents
    RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
        (test strips having a plurality of reaction zones and methods for using
        and manufacturing the same)
     50-99-7, Glucose, analysis
TT
    RL: ANT (Analyte); ANST (Analytical study)
        (test strips having a plurality of reaction zones and methods for using
        and manufacturing the same)
IT
     7722-84-1, Hydrogen peroxide, uses
    RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
        (test strips having a plurality of reaction zones and methods for using
        and manufacturing the same)
             THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
       44
RE
(1) Anon; DE 40677 1964
(2) Anon; WO 0058730 2000 HCAPLUS
(3) Azarnia; US 5607565 A 1997 HCAPLUS
(4) Carpenter; US 20020138222 A1 2002
(5) Cass; US 20020168692 A1 2002
(6) Catt; US 6451619 B1 2002 HCAPLUS
(7) Charlton; US 5208163 A 1993 HCAPLUS
(8) Christian; US 4673657 A 1987 HCAPLUS
(9) Deeq; US 5338688 A 1994
(10) Douglas; US 5843691 A 1998 HCAPLUS
(11) Fonner; US 3001915 A 1961 HCAPLUS
(12) Freitag; US 6410341 B1 2002 HCAPLUS
(13) Friesen; US 4861711 A 1989 HCAPLUS
(14) Fujisaki; US 5935520 A 1999 HCAPLUS
(15) Gordon; US 4960691 A 1990 HCAPLUS
(16) Han; US 6121050 A 2000 HCAPLUS
(17) Hansmann; US 5952173 A 1999 HCAPLUS
(18) Hayes; US 4877745 A 1989 HCAPLUS
(19) Huang; US 6368876 B1 2002 HCAPLUS
(20) Inoue; US 5476330 A 1995
(21) Kiser; US 5719034 A 1998 HCAPLUS
(22) Knappe; US 6455001 B1 2002 HCAPLUS
(23) Kronish; US 3785929 A 1974
(24) Lea; US 6403384 B1 2002 HCAPLUS
(25) Macho; US 5451350 A 1995
(26) Malick; US 6194220 B1 2001 HCAPLUS
(27) May; US 6228660 B1 2001 HCAPLUS
(28) McAleer; US 5951836 A 1999 HCAPLUS
(29) McAleer; US 6241862 B1 2001 HCAPLUS
(30) Meyer; US 3127281 A 1964
(31) Moorman; US 5356782 A 1994 HCAPLUS
(32) Owada; US 5820284 A 1998
(33) Phillips; US 5563042 A 1996 HCAPLUS
(34) Rapkin; US 4301115 A 1981 HCAPLUS
(35) Rice; US D381591 S 1997
(36) Sheinman; US 6003980 A 1999
(37) Shurben; US 4960565 A 1990 HCAPLUS
(38) Swanson; US 5073484 A 1991 HCAPLUS
(39) Wang; US 4618475 A 1986 HCAPLUS
(40) Wang; US 4622207 A 1986
(41) Wang; US 4687529 A 1987
(42) Whiteman; US 5830170 A 1998
```

(43) Wie; US 5240844 A 1993 (44) Yum; US 6251083 B1 2001 FILE 'REGISTRY' ENTERED AT 08:44:51 ON 21 OCT 2005 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 OCT 2005 HIGHEST RN 865652-03-5 DICTIONARY FILE UPDATES: 19 OCT 2005 HIGHEST RN 865652-03-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

CN

Mirasept

ANSWER 1 OF 2 REGISTRY COPYRIGHT 2005 ACS on STN 7722-84-1 REGISTRY RN Entered STN: 16 Nov 1984 Hydrogen peroxide (H2O2) (9CI) (CA INDEX NAME) OTHER CA INDEX NAMES: CNHydrogen peroxide (8CI) OTHER NAMES: Adeka Super EL CN CN Albone CN Albone 35 Albone DS CN CN Anti-Keim 50 CN Asepticper CN Baquashock CN CIX CN Crestal Whitestrips CN Crystacide CNDentasept CN Deslime LP CN Hioxyl CNHipox Hybrite CN CNHydrogen dioxide CN Inhibine CNLensan A CNMetrokur

```
NSC 19892
CN
    Odosat D
CN
CN
     Opalescence Xtra
CN
    Oxigenal
CN
     Oxydol
CN
     Oxyfull
CN
     Oxysept
CN
     Oxysept I
CN
     Pegasyl
     Perhydrol
CN
CN
     Perone
CN
     Peroxaan
    Peroxclean
CN
     Quasar Brite
CN
     Select Bleach
CN
CN
     Superoxol
CN
     T-Stuff
     Xtra White
CN
FS
     3D CONCORD
DR
     8007-30-5, 66554-50-5, 37355-84-3, 218625-72-0
MF
     H2 O2
CI
     COM
LC
     STN Files:
                  ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOBUSINESS, BIOSIS,
       BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,
       CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU,
       DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2,
       ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA,
       MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, PS, RTECS*, SCISEARCH, TOXCENTER, TULSA, ULIDAT, USAN, USPAT72, USPATFULL, VETU, VTB
         (*File contains numerically searchable property data)
     Other Sources: DSL**, EINECS**, TSCA**
          (**Enter CHEMLIST File for up-to-date regulatory information)
но-он
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
            89704 REFERENCES IN FILE CA (1907 TO DATE)
              782 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            89897 REFERENCES IN FILE CAPLUS (1907 TO DATE)
                2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
```

L3 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2005 ACS on STN 50-99-7 REGISTRY RN ED Entered STN: 16 Nov 1984 D-Glucose (8CI, 9CI) (CA INDEX NAME) OTHER NAMES: CN (+)-Glucose CN Anhydrous dextrose CN Cartose Cerelose CN Cerelose 2001 CN Clearsweet 95 CN Clintose L CNCNCorn sugar CPC hydrate CN CN D(+)-Glucose Dextropur CN

CN

CN

CN

CN CN Dextrose

Glucolin

Glucose

Dextrosol Glucodin

```
Glucosteril
CN
CN
     Goldsugar
CN
     Grape sugar
     Maxim Energy Gel
CN
CN
     Meritose
     Meritose 200
CN
CN
     Roferose ST
CN
     Stalevdex 111
CN
     Staleydex 130
     Staleydex 333
CN
CN
     Staleydex 95M
CN
     Sugar, grape
     Tabfine 097(HS)
CN
CN
     Vadex
FS
     STEREOSEARCH
DR .
     8012-24-6, 8030-23-7, 162222-91-5, 165659-51-8, 50933-92-1, 80206-31-1
MF
     C6 H12 O6
CI
     COM
LC
     STN Files:
                   ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS,
       BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB,
       CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB,
       DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IMSCOSEARCH, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT,
       NIOSHTIC, PDLCOM*, PIRA, PROMT, PS, RTECS*, SPECINFO, TOXCENTER, TULSA,
       ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
          (*File contains numerically searchable property data)
     Other Sources: DSL**, EINECS**, TSCA**
          (**Enter CHEMLIST File for up-to-date regulatory information)
```

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

181456 REFERENCES IN FILE CA (1907 TO DATE)
2543 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
181771 REFERENCES IN FILE CAPLUS (1907 TO DATE)
14 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> b wpix;d all 14 tot FILE 'WPIX' ENTERED AT 08:44:57 ON 21 OCT 2005 COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE LAST UPDATED: 19 OCT 2005 <20051019/UP>
MOST RECENT DERWENT UPDATE: 200567 <200567/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
 PLEASE VISIT:
http://www.stn-international.de/training center/patents/stn guide.pdf <<<</pre>

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE http://thomsonderwent.com/coverage/latestupdates/ <<<

>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER GUIDES, PLEASE VISIT: http://thomsonderwent.com/support/userguides/

<<<

```
>>> NEW! FAST-ALERTING ACCESS TO NEWLY-PUBLISHED PATENT
    DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX
    FIRST VIEW - FILE WPIFV.
    FOR FURTHER DETAILS: http://www.thomsonderwent.com/dwpifv <<<
>>> THE CPI AND EPI MANUAL CODES HAVE BEEN REVISED FROM UPDATE 200501.
    PLEASE CHECK:
http://thomsonderwent.com/support/dwpiref/reftools/classification/code-revision/
    FOR DETAILS. <<<
'BIX BI, ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE
    ANSWER 1 OF 2 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
L4
AN
     2004-614823 [59]
                       WPIX
    C2004-221447
    Test strip for determining analyte concentration in physiological sample
TT
    e.g. glucose in blood comprises hydrophobic barrier separating reaction
DC
    B04 D16 J04
    SIU YU, Y
IN
PΑ
     (YUYY-I) SIU YU Y
CYC 1
ΡI
    US 2004161365
                   A1 20040819 (200459)*
                                                16
                                                      C12Q001-66
ADT US 2004161365 A1 Div ex US 2001-11000 20011205, US
     2004-783749 20040219
FDT US 2004161365 A1 Div ex US 6723500
                          20011205; US 2004-783749
PRAI US 2001-11000
    20040219
TC
    ICM C12Q001-66
    US2004161365 A UPAB: 20040915
AB
     NOVELTY - A test strip comprising reaction zones (20 - 22) defined by a
     barrier comprising hydrophobic ink and a reagent composition comprising at
     least one member of an analyte oxidation based signal producing system
     present in each reaction zone, is new.
          DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
          (1) manufacturing the reaction zones of the strip; and
          (2) a kit comprising the test strip(s) and instructions for using the
          USE - The test strip is useful for determining concentration of at
     least one analyte in a physiological sample e.g. glucose concentration
     (claimed) in blood.
          ADVANTAGE - Contamination of reaction zones is minimized or
     eliminated. The test strip is easy to use and manufactured easily at low
     cost. The results are accurate, precise and reproducible.
          DESCRIPTION OF DRAWING(S) - The figure shows perspective view of the
     test strip.
          Reaction zones 20 - 22
     Bottom layer 30
          Intermediate layer 500
    Dwg.3/5
FS
    CPI
FΑ
     AB; GI; DCN
     CPI: B04-B04D5; B10-A07; B11-C08; B11-C09; B12-K04A; D05-H09; J04-B01B;
MC
     ANSWER 2 OF 2 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
L4
ΑN
     2003-801235 [75]
                       WPIX
DNC C2003-221203
     Test strip for determining the concentration of analyte(s) in
     physiological sample, has reaction zones each defined by hydrophobic
     barrier, and reagent composition.
DC
     B04 D16
     YU, Y S; YU, S
IN
     (LIFE-N) LIFESCAN INC; (YUYS-I) YU Y S
PΑ
```

```
CYC 39
ΡI
    US 2003104510
                    A1 20030605 (200375)*
                                                16
                                                      C12Q001-26
                                                                     <---
     CA 2413533
                    A1 20030605 (200375) EN
                                                      G01N033-52
                    A1 20030611 (200375) EN
                                                      G01N031-22
     EP 1318397
         R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC
            MK NL PT RO SE SI SK TR
     JP 2003247996 A 20030905 (200375)
                                                15
                                                      G01N033-543
                   A 20030612 (200375)
                                                      G01N033-49
     KR 2003046315
     NO 2002005804 A 20030606 (200375)
                                                      G01N033-52
                    A 20031126 (200413)
                                                      G01N033-52
     CN 1458526
     US 6723500
                    B2 20040420 (200427)
                                                      C12Q001-00
                    A1 20030619 (200461)
     AU 2002302090
                                                      G01N033-531
     MX 2002011970
                   A1 20040701 (200545)
                                                      C12M001-34
                   A 20031016 (200557)
                                                      G01N033-48
     TW 2003005015
ADT US 2003104510 A1 US 2001-11000 20011205; CA 2413533 A1 CA
     2002-2413533 20021204; EP 1318397 A1 EP 2002-258366 20021204; JP
     2003247996 A JP 2002-352801 20021204; KR 2003046315 A KR 2002-76491
     20021204; NO 2002005804 A NO 2002-5804 20021203; CN 1458526 A CN
     2002-151582 20021204; US 6723500 B2 US 2001-11000 20011205; AU
     2002302090 A1 AU 2002-302090 20021126; MX 2002011970 A1 MX 2002-11970
     20021203; TW 2003005015 A TW 2002-135112 20021204
PRAI US 2001-11000
                         20011205
         C12M001-34; C12Q001-00; C12Q001-26; G01N031-22; G01N033-48;
          G01N033-49; G01N033-52; G01N033-531; G01N033-543
     ICS C12M003-00; C12Q001-54; G01N033-53; G01N033-66
AΒ
     US2003104510 A UPAB: 20031120
     NOVELTY - A test strip for determining the concentration of analyte(s) in
     a physiological sample, comprising reaction zones (20-24); and a reagent
     composition present in each reaction zone, is new. Each reaction zone is
     defined by a hydrophobic barrier.
          DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:
          (1) manufacturing the reaction zones of the test strip, comprising
     positioning a thermal head in alignment with a test strip matrix, and
     actuating the thermal head in a manner to transfer a volume of hydrophobic
     composition onto the matrix; and
          (2) a kit for determining the concentration of analyte(s) in the
     physiological sample, comprising the novel test strip(s), and instructions
     for using the test strip.
          The hydrophobic composition is deposited on the matrix to produce the
     test strip comprising the reaction zones. Each zone is defined by the
     hydrophobic composition.
          USE - For determining the concentration of analyte(s) in a
     physiological sample, by applying the sample to the test strip, detecting
     a signal produced by the reaction of the reagent composition with the
     sample, and relating the detected signal to the amount of the analyte in
     the sample (claimed).
          ADVANTAGE - The invention is simple to use, accurate, precise and
     easy, and low cost to manufacture.
          DESCRIPTION OF DRAWING(S) - The drawing shows an exemplary test strip
     matrix.
          Reaction zones 20-24.
     Dwg.1/5
FS
     CPI
FA
     CPI: B04-L01; B05-C08; B10-A07; B11-C08E3; B12-K04A; D05-H09
MC
=> b home
FILE 'HOME' ENTERED AT 08:45:04 ON 21 OCT 2005
```

=>

=> d his full

```
(FILE 'HOME' ENTERED AT 08:42:26 ON 21 OCT 2005)
```

FILE 'HCAPLUS' ENTERED AT 08:42:44 ON 21 OCT 2005 L1 1 SEA ABB=ON PLU=ON (US2004161365 OR US6723500 OR US2003104510) /PN OR (US2004-783749# OR US2001-011000#)/AP,PRN

FILE 'REGISTRY' ENTERED AT 08:44:03 ON 21 OCT 2005

FILE 'HCAPLUS' ENTERED AT 08:44:03 ON 21 OCT 2005 L2 TRA L1 1- RN : 2 TERMS

FILE 'REGISTRY' ENTERED AT 08:44:04 ON 21 OCT 2005 2 SEA ABB=ON PLU=ON L2 L3

FILE 'WPIX' ENTERED AT 08:44:07 ON 21 OCT 2005

- 2 SEA ABB=ON PLU=ON (US2004161365 OR US6723500 OR US2003104510) 1.4 /PN OR (US2004-783749# OR US2001-011000#)/AP.PRN
- 106880 SEA ABB=ON PLU=ON (G01N033-48# OR G01N033-49# OR G01N033-50# L5 OR G01N033-52# OR G01N033-53# OR C12Q001)/IPC
- 157401 SEA ABB=ON PLU=ON (B11-C08E6 OR C11-C08E6 OR B11-C10? OR L6 C11-C10? OR S03-E14H? OR D05-H09 OR D05-H04 OR D05-H05 OR D05-H06?)/MC
- L7 214940 SEA ABB=ON PLU=ON (P831 OR N100 OR N102 OR N105 OR R510 OR R511 OR R515)/M0,M1,M2,M3,M4,M5,M6 OR (B12-K04 OR C12-K04 OR B12-K04E OR C12-K04E OR B12-K04A OR C12-K04A)/MC
- 100837 SEA ABB=ON PLU=ON (L5 OR L6 OR L7) AND R63?/M0,M1,M2,M3,M4,M5 L8 , M6

E SIU YU L/AU E SIU YU Y/AU

- 3 SEA ABB=ON PLU=ON "SIU YU Y"/AU L9 E LIFESCAN/CS, PA
- 206 SEA ABB=ON PLU=ON (LIFESCAN/CS OR LIFESCAN/PA OR "LIFESCAN L10 CO"/CS OR "LIFESCAN CO"/PA OR "LIFESCAN CO LTD"/CS OR "LIFESCAN CO LTD"/PA OR "LIFESCAN CORP"/CS OR "LIFESCAN CORP"/PA OR "LIFESCAN INC"/CS OR "LIFESCAN INC"/PA OR "LIFESCAN LLC"/CS OR "LIFESCAN LLC"/PA OR "LIFESCAN LTD"/CS OR "LIFESCAN LTD"/PA OR "LIFESCAN SCOTLAND LTD"/CS OR "LIFESCAN SCOTLAND LTD"/PA)
- 122 SEA ABB=ON PLU=ON L8 AND (L9 OR L10)
 3 SEA ABB=ON PLU=ON L8 AND L9 L11
- L12
- 100834 SEA ABB=ON PLU=ON L8 NOT L12 L13
- 1914 SEA ABB=ON PLU=ON L13 AND ?HYDROPHOB?/BIX,BI,ABEX L14
- 1417 SEA ABB=ON PLU=ON L14 AND (M781 OR M782)/M0,M1,M2,M3,M4,M5,M6 L15 L16
- 490 SEA ABB=ON PLU=ON L15 NOT (PY>2001 OR AY>2001 OR PRY>2001)
 47029 SEA ABB=ON PLU=ON L8 AND (R61# AND R62#)/M0,M1,M2,M3,M4,M5,M6 L17
- 20993 SEA ABB=ON PLU=ON L17 NOT (PY>2001 OR AY>2001 OR PRY>2001) L18
- L19
- 16989 SEA ABB=ON PLU=ON L18 AND L6 5 SEA ABB=ON PLU=ON L18 AND ?HYDROPHOB?/BIX,BI,ABEX (L)BARRIER? L20 /BIX, BI, ABEX
- 14 SEA ABB=ON PLU=ON L18 AND (L9 OR L10) 5 SEA ABB=ON PLU=ON L20 NOT L21 L21
- L22
- 1 SEA ABB=ON PLU=ON 1993-182693/AN AND L22 L23
- 4 SEA ABB=ON PLU=ON L18 AND L5 AND ?HYDROPHOB?/BIX,BI,ABEX L24
 - (L) BARRIER?/BIX, BI, ABEX
- L25 5 SEA ABB=ON PLU=ON L18 AND L7 AND ?HYDROPHOB?/BIX,BI,ABEX (L)BARRIER?/BIX,BI,ABEX
- 0 SEA ABB=ON PLU=ON L25 NOT (L22 OR L24) L26
- L27 128 SEA ABB=ON PLU=ON (L5 OR L6 OR L7) AND ?HYDROPHOB?/BIX,BI,ABE X (L) BARRIER?/BIX, BI, ABEX
- L28
- 63 SEA ABB=ON PLU=ON L27 AND R63#/M0,M1,M2,M3,M4,M5,M6 11 SEA ABB=ON PLU=ON L28 NOT (PY>2001 OR AY>2001 OR PRY>2001) L29
- L30 6 SEA ABB=ON PLU=ON L29 NOT (L25 OR L22 OR L24)
- 3 SEA ABB=ON PLU=ON (1988-106828/AN OR 1993-171852/AN OR L31 1994-265967/AN) AND L30

```
7 SEA ABB=ON PLU=ON L11 AND ?HYDROPHOB?/BIX,BI,ABEX
                9 SEA ABB=ON PLU=ON
                                         (L12 OR L32)
L33
1.34
                4 SEA ABB=ON PLU=ON
                                        (L23 OR L31)
     FILE 'HCAPLUS' ENTERED AT 10:00:08 ON 21 OCT 2005
           39424 SEA ABB=ON PLU=ON (BIOCHEM?(L)METHOD?)/SC,SX AND ?REAGENT?
L35
                  E REAGENTS/CT
                  E E3+ALL
L36
                  QUE ABB=ON PLU=ON REAGENTS+NT/CT
            4019 SEA ABB=ON PLU=ON (BIOCHEM?(L)METHOD?)/SC,SX AND L36
L37
           13035 SEA ABB=ON PLU=ON ANALYTICAL APPARATUS+OLD,NT/CT
1307 SEA ABB=ON PLU=ON (L35 OR L37) AND L38
55 SEA ABB=ON PLU=ON L39 AND ?HYDROPHOB?
L38
L39
L40
             123 SEA ABB=ON PLU=ON (LIFESCAN OR LIFE(W)SCAN)/CS,PA
T.41
                  E SIU YU Y/AU
                  D BIB L1
                  E YU Y/AU
              371 SEA ABB=ON PLU=ON ("YU Y"/AU OR "YU Y S"/AU OR "YU Y S
L42
                  L"/AU)
                  E YU YEUNG/AU
               30 SEA ABB=ON PLU=ON ("YU YEUNG"/AU OR "YU YEUNG S"/AU OR "YU
L43
                  YEUNG SIU"/AU)
              4 SEA ABB=ON PLU=ON L40 AND (L41 OR L42 OR L43)
51 SEA ABB=ON PLU=ON L40 NOT L44
39 SEA ABB=ON PLU=ON L45 AND (PY<=2001 OR AY=2001 OR PRY<=2001)
T.44
L45
L46
              28 SEA ABB=ON PLU=ON L46 AND ANT/RL
L47
                2 SEA ABB=ON PLU=ON ("115:202720"/AN OR "120:265290"/AN OR
L48
                  "1991:602720"/AN OR "1994:265290"/AN) AND L47
                3 SEA ABB=ON PLU=ON ("133:101716"/AN OR "133:277164"/AN OR
L49
                  "136:259544"/AN OR "2000:493753"/AN OR "2000:754453"/AN OR
                  "2002:251888"/AN) AND L47
```

=> b hcap;d all 144 tot FILE 'HCAPLUS' ENTERED AT 10:22:44 ON 21 OCT 2005 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 21 Oct 2005 VOL 143 ISS 18 FILE LAST UPDATED: 20 Oct 2005 (20051020/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
L44 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:922643 HCAPLUS

DN 139:393111

ED Entered STN: 26 Nov 2003

TI Microdroplet dispensing for a medical diagnostic device

IN Harding, Ian A.; Shartle, Robert Justice; Renowitzky, Glenn; Leung, Lewis

PA Lifescan, Inc., USA
```

```
U.S., 15 pp., Cont.-in-part of U.S. 6,521,182.
SO
    CODEN: USXXAM
DТ
    Patent
LA
    English
IC
    ICM B05D003-00
        G01N021-75
INCL 436166000; 436169000; 422058000; 347098000; 427002110
    9-1 (Biochemical Methods)
    Section cross-reference(s): 14
FAN.CNT 3
    PATENT NO.
                      KIND DATE
                                        APPLICATION NO.
                                                             DATE
     -----
                                         -----
                       ----
                             20041214
                                        US 1999-454196
                                                             19991203
    US 6830934
                       B1
PΙ
                      B1 20030218 US 1999-333765
A2 20010117 EP 2000-304003
                                                            19990615
20000512
    US 6521182
    EP 1069427
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
                             20040831
                                        IL 2000-136102
                                                              20000512
    IL 136102
                       A1
                             20010124 CN 2000-118865
                                                              20000616
    CN 1281146
                       Α
                      AA 20010116 CA 2000-2313860
                                                              20000711
    CA 2313860
    TW 472147
                      В
                             20020111 TW 2000-89114024
                                                              20000926
                      A1 20020618 SG 2000-7245
                                                              20001127
    SG 89361
                      B2
A5
                                       AU 2000-71890
    AU 775559
                             20040805
                                                              20001129
    AU 2000071890
                             20010614
                      AA 20010603
                                        CA 2000-2327305
                                                             20001130
    CA 2327305
                      A2 20010613 EP 2000-310691
                                                              20001201
    EP 1107004
    EP 1107004
                       A3
                            20030416
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
                                         JP 2000-367717
                                                              20001201
    JP 2001201504
                       A2
                              20010727
                             20050710 RU 2000-130159
    RU 2256167
                       C2
                            20010704 CN 2000-137319
                                                             20001202
    CN 1301965
                      Α
                            20010821 BR 2000-5697
                                                              20001204
                      Α
    BR 2000005697
                      A1 20050121 HK 2001-103449
                                                              20010518
    HK 1032821
                      A1 20020725 US 2002-61723
A1 20031113 US 2003-461219
    US 2002098114
                                                              20020201
    US 2003210287
                                                             20030613
    US 2004109790
                      A1 20040610 US 2003-666846
                                                             20030918
PRAI US 1999-333765
                      A2 19990615
                       P
                           19980720
    US 1998-93421P
    US 1999-354995
                       Α
                             19990716
    US 1999-454196
                             19991203
                        Α
    US 2002-264662
                       B1
                             20021003
CLASS
              CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
               _____
 -----
                      B05D003-00
                ICM
 US 6653145
                ICS
                      G01N021-75
                      436166000; 436169000; 422058000; 347098000; 427002110
                INCL
                      436/166.000; 347/098.000; 422/058.000; 427/002.110;
 US 6830934
                NCL
                      436/169.000
                      B01L003/00C6M; G01N033/49B; G01N033/52C; G01N033/543K4;
                ECLA
                      G01N033/558
                      422/058.000; 422/061.000; 436/069.000; 436/164.000;
                NCL
 US 6521182
                      436/169.000; 436/177.000
                      B01L003/00C6M; G01N033/49B; G01N033/52C; G01N033/53B2;
                ECLA
                      G01N033/543K4; G01N033/558
                      G01N033/49B; G01N033/53B2
 EP 1069427
                ECLA
                      B01L003/00C6M; G01N033/52B; G01N033/86
 EP 1107004
                ECLA
                      B01L003/00C6M; G01N033/52B; G01N033/86
 CN 1301965
                ECLA
 US 2002098114
                NCI.
                      422/056.000
                      B01L003/00C6M; G01N033/49B; G01N033/52B; G01N033/52C;
                ECLA
                      G01N033/53B2; G01N033/543K4; G01N033/558; G01N033/86
 US 2003210287
                NCL
                      347/001.000
                      B01L003/00C6M; G01N033/49B; G01N033/52B; G01N033/52C;
                ECLA
                      G01N033/53B2; G01N033/543K4; G01N033/558; G01N033/86
                      422/058.000
 US 2004109790
                NCL
```

```
B01L003/00C6M; G01N033/49B; G01N033/52C; G01N033/53B2;
                 ECLA
                        G01N033/543K4; G01N033/558
AB
    A medical diagnostic device has a non-absorbent substrate that has a
    hydrophilic target area on which a reagent is deposited by
    non-impact printing of microdroplets. During deposition, the device is
    moved relative to the stream of microdroplets to form a substantially
    uniform reagent layer on the substrate. The device is
    particularly well adapted for measuring blood coagulation times.
    preferred embodiment, coagulation times are determined by monitoring the
     optical transmission of light through the target area as an applied blood
     sample interacts with the reagent.
ST
    microdroplet dispensing medical diagnostic device
    Surface area
IT
        (Hydrophilic; microdroplet dispensing for a medical diagnostic device)
IT
     Surface
        (Hydrophobic; microdroplet dispensing for a medical
        diagnostic device)
IT
    Materials
        (Non-absorbent; microdroplet dispensing for a medical diagnostic
        device)
    Contact angle
IT
        (Water; microdroplet dispensing for a medical diagnostic device)
IT
    Adhesive tapes
        (double-stick; microdroplet dispensing for a medical diagnostic device)
TT
    Blood analysis
    Blood coagulation
     Body fluid
       Clinical analyzers
     Coating process
     Coloring materials
     Concentration (condition)
     Diagnosis
     Dispensing apparatus
     Human
     Light
     Liquids
     Optical transmission
     Pipes and Tubes
     Pressure
     Printing (nonimpact)
     Reaction
     Samples
     Time
        (microdroplet dispensing for a medical diagnostic device)
IT
     RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical
     process); PYP (Physical process); ANST (Analytical study); PROC (Process);
     USES (Uses)
        (microdroplet dispensing for a medical diagnostic device)
IT
     Drops
        (microdroplets; microdroplet dispensing for a medical diagnostic
        device)
IT
     Plastic films
        (thermo-, Transparent; microdroplet dispensing for a medical diagnostic
TT
     9002-05-5, Thromboplastin
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
        (microdroplet dispensing for a medical diagnostic device)
IT
     7732-18-5, Water, properties
     RL: PRP (Properties)
        (microdroplet dispensing for a medical diagnostic device)
              THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
(1) Anon; GB 1526708 1978 HCAPLUS
```

(2) Anon; WO 9402850 1994 HCAPLUS

```
(3) Anon; EP 0974840 A 2000 HCAPLUS
(4) Davis; US 3620676 A 1971 HCAPLUS
(5) Davis; US 5628961 A 1997
(6) Deeg; US 5378638 A 1995
(7) Driscoll; US 5068181 A 1991 HCAPLUS
(8) Gavin; US 5591403 A 1997 HCAPLUS
(9) Hayes; US 4877745 A 1989
(10) Hillman; US 4756884 A 1988
(11) Hurtig; US 3640267 A 1972
(12) Jina; US 6066504 A 2000 HCAPLUS
(13) Klebe; US 5108926 A 1992
(14) Lilja; US 4088448 A 1978
(15) Nikiforov; US 5610287 A 1997 HCAPLUS
(16) Oberhardt; US 4849340 A 1989 HCAPLUS
(17) Stimpson, D; Biotechniques 1998, V25(5), P886 HCAPLUS
(18) Winkler; US 5677195 A 1997 HCAPLUS
(19) Wohlstadter; US 6066448 A 2000 HCAPLUS
(20) Yassinzadeh; US 6103196 A 2000 HCAPLUS
L44 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN
    2003:892003 HCAPLUS
AN
    139:347717
DN
    Entered STN: 14 Nov 2003
ED
ТT
    Multilayer reagent test strips and methods for using the same to
    quantify glycated protein in a physiological sample
IN
    Qian, Suyue; Guo, Sherry; Leong, Koon-Wah
   Lifescan, Inc., USA
PA
    Eur. Pat. Appl., 18 pp.
SO
    CODEN: EPXXDW
DT
    Patent
    English
LΑ
IC
    ICM G01N033-543
    ICS C12Q001-00; C12Q001-37
CC
    9-1 (Biochemical Methods)
FAN.CNT 1
                                        APPLICATION NO.
    PATENT NO.
                       KIND DATE
                                                              DATE
    EP 1361436 A1 20031112 EP 2003-252921 20030509
      R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
    US 2003211564 A1
US 6951728 B2
                              20031113
                                         US 2002-144562
                                                               20020510
                              20051004
                       A1 20041029 SG 2003-2468
    SG 106684
                                                              20030430
                                                              20030508
    CN 1456680
                       Α
                             20031119 CN 2003-131247
JP 2004004071
PRAI US 2002-144562
CLASS
PATENT
                       AA 20031110 CA 2003-2428482
                                                               20030509
                                                               20030509
                       A2 20040108
                                         JP 2003-131819
                        Α
                              20020510
              CLASS PATENT FAMILY CLASSIFICATION CODES
 _____
              ICM G01N033-543
 EP 1361436
                ICS
ECLA
                      C12Q001-00; C12Q001-37
                      C12Q001/26; C12Q001/37; G01N033/52C2; G01N033/543K
 EP 1361436
 US 2003211564 NCL
                      435/023.000
                ECLA C12Q001/26; C12Q001/37; G01N033/52C2; G01N033/543K
               FTERM 2G045/AA01; 2G045/BB01; 2G045/BB50; 2G045/CA25;
 JP 2004004071
                       2G045/DA44; 2G045/FB01; 2G045/FB17; 2G045/GC10;
                       2G045/JA01; 4B029/AA07; 4B029/AA21; 4B029/BB15;
                       4B029/BB16; 4B029/CC01; 4B029/CC03; 4B029/CC10;
                       4B029/CC11; 4B029/FA12; 4B063/QA01; 4B063/QA19;
                       4B063/QQ02; 4B063/QQ03; 4B063/QQ08; 4B063/QQ67;
                       4B063/QQ79; 4B063/QR03; 4B063/QR16; 4B063/QR85;
                       4B063/QS12; 4B063/QS28; 4B063/QS36; 4B063/QS39;
                       4B063/QX01
    Multilayer reagent test strips for quantitating glycated protein
AB
     in a fluid sample, as well as methods for using the same, are provided.
```

The subject multilayer test strips include at least a filter layer, a proteinase layer and a ketoamine oxidase signal producing and fluid flow control system layer. In using the subject test strips, a fluid sample is applied to the test strip and a signal is generated that can be employed to quantitate the glycated protein level in the sample. The quantitated glycated protein level can then be employed to determine the amount of glycated protein in the fluid sample. Also provided are kits and systems that include the subject test strips and find use in practicing the subject methods. The subject compns. and methods find use in glycated protein monitoring applications, among other utilities. multilayer reagent test strip quantify glycated protein physiol IT Glycoproteins RL: ANT (Analyte); ANST (Analytical study) (AGE (advanced glycosylation end product); multilayer reagent test strips and methods for using the same to quantify glycated protein in a physiol. sample) IT Bond (Ketoamine; multilayer reagent test strips and methods for using the same to quantify glycated protein in a physiol. sample) IT Analytical apparatus (Multilayer reagent test strips; multilayer reagent test strips and methods for using the same to quantify glycated protein in a physiol. sample) TT Samples (Physiol.; multilayer reagent test strips and methods for using the same to quantify glycated protein in a physiol. sample) TT Configuration (Stacked; multilayer reagent test strips and methods for using the same to quantify glycated protein in a physiol. sample) IT Blood Blood plasma Communication Composition Control apparatus Erythrocyte Filters Flow Fluids Hydrophobicity Indicators Measuring apparatus Multilayers Sensors Separation Separators Test kits (multilayer reagent test strips and methods for using the same to quantify glycated protein in a physiol. sample) IT RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (multilayer reagent test strips and methods for using the same to quantify glycated protein in a physiol. sample) TT 9003-99-0, Peroxidase RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (multilayer reagent test strips and methods for using the same to quantify glycated protein in a physiol. sample) 9001-92-7, Proteinase 146838-32-6, Ketoamine oxidase RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses) (multilayer reagent test strips and methods for using the same to quantify glycated protein in a physiol. sample) RE.CNT THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD RE (1) Genzyme; EP 0526150 A 1993 HCAPLUS (2) Genzyme; US 6008006 A 1999 HCAPLUS

(3) Kagaku, K; EP 0921198 A 1999 HCAPLUS

(4) Kobayashi, K; BIOLOGICAL AND PHARMACEUTICAL BULLETIN 1993, V16(2), P195 **HCAPLUS** L44 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN 2003:435210 HCAPLUS AΝ 138:398367 DN ED Entered STN: 06 Jun 2003 TI Test strips having a plurality of reaction zones and methods for using and manufacturing the same IN Yu, Yeung Siu PA Lifescan, Inc., USA U.S. Pat. Appl. Publ., 16 pp. SO CODEN: USXXCO DTPatent English LA ICM C12Q001-26 IC INCL 435025000 9-1 (Biochemical Methods) FAN.CNT 1 APPLICATION NO. DATE PATENT NO. KIND DATE 20030605 US 2001-11000 20040420 --------------US 2003104510 20011205 A1 PT US 6723500 B2 20040420

NO 2002005804 A 20030606 NO 2002-5804 20021203

CA 2413533 AA 20030605 CA 2002-2413533 20021204

EP 1318397 A1 20030611 EP 2002-258366 20021204 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
 JP 2003247996
 A2
 20030905
 JP 2002-352801
 20021204

 CN 1458526
 A
 20031126
 CN 2002-151582
 20021204
 CN 1458526 A1 20040819 US 2004161365 PRAI US 2001-11000 US 2004-783749 20040219 20011205 CLASS CLASS PATENT FAMILY CLASSIFICATION CODES PATENT NO. US 2003104510 ICM C12Q001-26 INCL 435025000 US 2003104510 NCL 435/025.000 ECLA G01N033/52C; G01N033/558 ECLA G01N033/52C; G01N033/558 EP 1318397 US 2004161365 NCL 422/056.000 ECLA G01N033/52C; G01N033/558 Test strips, and methods for their manufacture and use in the determination of the AB concentration of at least one analyte in a physiol. sample are provided. The subject test strips have a plurality of reaction zones defined by a hydrophobic barrier. The reagent compns. present in each reaction zone may be the same or different. In addition, each reaction zone may have a sep. fluid channel, or two or more of the reaction zones may have sep. channels that merge into a single channel. In use, sample is applied to a subject test strip, a signal is detected and then related to the amount of analyte in the sample. Also provided are methods for manufacturing the subject test strips using thermal transfer technol. to apply the hydrophobic barrier. Finally, kits are provided for use in practicing the subject methods. test strip plurality reaction zone manufg ST \mathbf{IT} Enzymes, uses RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (Glucose oxidizing; test strips having a plurality of reaction zones and methods for using and manufacturing the same) IT Inks (Hydrophobic; test strips having a plurality of reaction zones and methods for using and manufacturing the same) IT Analytical apparatus (Test strips; test strips having a plurality of reaction zones and methods for using and manufacturing the same) IT Apparatus

(Thermal head; test strips having a plurality of reaction zones and methods for using and manufacturing the same) IT Blood analysis (glucose; test strips having a plurality of reaction zones and methods for using and manufacturing the same) ΙT Enzymes, uses RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (oxidizing; test strips having a plurality of reaction zones and methods for using and manufacturing the same) IΤ Absorption Biological materials Blood analysis Communication Composition Concentration (condition) Dves Fluids Lances Measuring apparatus Oxidation Reaction Standard substances, analytical Test kits Volume (test strips having a plurality of reaction zones and methods for using and manufacturing the same) IT Enzymes, uses Reagents RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (test strips having a plurality of reaction zones and methods for using and manufacturing the same) TT 50-99-7, Glucose, analysis RL: ANT (Analyte); ANST (Analytical study) (test strips having a plurality of reaction zones and methods for using and manufacturing the same) TΤ 7722-84-1, Hydrogen peroxide, uses RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (test strips having a plurality of reaction zones and methods for using and manufacturing the same) RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD RE (1) Anon; DE 40677 1964 (2) Anon; WO 0058730 2000 HCAPLUS (3) Azarnia; US 5607565 A 1997 HCAPLUS (4) Carpenter; US 20020138222 A1 2002 (5) Cass; US 20020168692 A1 2002 (6) Catt; US 6451619 B1 2002 HCAPLUS (7) Charlton; US 5208163 A 1993 HCAPLUS (8) Christian; US 4673657 A 1987 HCAPLUS (9) Deeg; US 5338688 A 1994 (10) Douglas; US 5843691 A 1998 HCAPLUS (11) Fonner; US 3001915 A 1961 HCAPLUS (12) Freitag; US 6410341 B1 2002 HCAPLUS (13) Friesen; US 4861711 A 1989 HCAPLUS (14) Fujisaki; US 5935520 A 1999 HCAPLUS (15) Gordon; US 4960691 A 1990 HCAPLUS (16) Han; US 6121050 A 2000 HCAPLUS (17) Hansmann; US 5952173 A 1999 HCAPLUS (18) Hayes; US 4877745 A 1989 HCAPLUS (19) Huang; US 6368876 B1 2002 HCAPLUS (20) Inoue; US 5476330 A 1995 (21) Kiser; US 5719034 A 1998 HCAPLUS (22) Knappe; US 6455001 B1 2002 HCAPLUS (23) Kronish; US 3785929 A 1974

(24) Lea; US 6403384 B1 2002 HCAPLUS

(25) Macho; US 5451350 A 1995

```
(26) Malick; US 6194220 B1 2001 HCAPLUS
(27) May; US 6228660 B1 2001 HCAPLUS
(28) McAleer; US 5951836 A 1999 HCAPLUS
(29) McAleer; US 6241862 B1 2001 HCAPLUS
(30) Meyer; US 3127281 A 1964
(31) Moorman; US 5356782 A 1994 HCAPLUS
(32) Owada; US 5820284 A 1998
(33) Phillips; US 5563042 A 1996 HCAPLUS
(34) Rapkin; US 4301115 A 1981 HCAPLUS
(35) Rice; US D381591 S 1997
(36) Sheinman; US 6003980 A 1999
(37) Shurben; US 4960565 A 1990 HCAPLUS
(38) Swanson; US 5073484 A 1991 HCAPLUS
(39) Wang; US 4618475 A 1986 HCAPLUS
(40) Wang; US 4622207 A 1986
(41) Wang; US 4687529 A 1987
(42) Whiteman; US 5830170 A 1998
(43) Wie; US 5240844 A 1993
(44) Yum; US 6251083 B1 2001
L44 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN
    2003:330890 HCAPLUS
AN
DN
    138:333993
   Entered STN: 30 Apr 2003
ED
TI Multi-layer reagent test strip
IN Leong, Koon-Wah; Yu, Yeung Siu; Rice, Edward Gray
PA
   Lifescan, Inc., USA
    U.S., 5 pp.
CODEN: USXXAM
DT
   Patent
LA
   English
    ICM G01N033-48
IC
INCL 422058000; 436169000; 436177000; 436178000
CC 9-1 (Biochemical Methods)
FAN.CNT 1
    PATENT NO.
                      KIND DATE
                                        APPLICATION NO.
                                                               DATE
                                                               -----
     _____
                      ----
                                          -----
                       B1 20030429 US 2000-684716 20001005
PΙ
    US 6555061
    US 2004028557
                       A1
                              20040212
                                       US 2003-426458
                                                               20030429
PRAI US 2000-684716
                              20001005
                        A1
CLASS
              CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
 ______
              ICM G01N033-48
US 6555061
                INCL 422058000; 436169000; 436177000; 436178000
                      422/058.000; 436/169.000; 436/177.000; 436/178.000
US 6555061
                NCL
                ECLA G01N033/52C2; G01N033/66
US 2004028557 NCL 422/056.000
               ECLA G01N033/52C2; G01N033/66
    A reagent test strip for measuring an analyte concentration in a biol.
AR
     fluid has a spreading mesh sandwiched between a support and a
     reagent matrix. The support has a through hole that is covered by
    the mesh. In use, a sample of the fluid is applied through the hole in
     the support to the spreading mesh. The sample then passes through the
    mesh to the matrix, which contains a reagent that indicates the
     analyte concentration by causing a corresponding change in reflectance at its
     free surface. Optionally, an adhesive layer attaches the mesh, and
     optionally the matrix as well, to the support. The reagent especially
    indicates glucose concentration
    multilayer reagent test strip analyte body fluid; glucose
ST
    multilayer reagent test strip
IT
    Hydrophobicity
        (adhesive having; multi-layer reagent test strip for
       measuring analyte concentration in biol. fluid)
    Body fluid
IT
        (anal. of; multi-layer reagent test strip for measuring
```

```
analyte concentration in biol. fluid)
TT
    Membranes, nonbiological
        (asym., as reagent matrix, with larger pores near sample
        receiving surface and smaller pores near testing surface; multi-layer
        reagent test strip for measuring analyte concentration in biol. fluid)
TT
    Adhesives
        (attaching spreading mesh and reagent matrix to support;
        multi-layer reagent test strip for measuring analyte concentration
        in biol. fluid)
TT
    Analytical apparatus
        (biochem.; multi-layer reagent test strip for measuring
        analyte concentration in biol. fluid)
TT
     Fluids
        (biol., anal. of; multi-layer reagent test strip for
        measuring analyte concentration in biol. fluid)
     Chromophores
IT
        (for glucose; multi-layer reagent test strip for measuring
        analyte concentration in biol. fluid)
IT
    Reagents
     RL: ARG (Analytical reagent use); DEV (Device component use); TEM
     (Technical or engineered material use); ANST (Analytical study); USES
        (in matrix layer; multi-layer reagent test strip for
        measuring analyte concentration in biol. fluid)
IT
    Materials
        (layered, spreading mesh sandwiched between support and reagent
        matrix; multi-layer reagent test strip for measuring analyte
        concentration in biol. fluid)
IT
     Polyamides, uses
     RL: DEV (Device component use); TEM (Technical or engineered material
     use); USES (Uses)
        (membrane, as reagent matrix; multi-layer reagent
        test strip for measuring analyte concentration in biol. fluid)
TT
     Multilayers
     Samples
        (multi-layer reagent test strip for measuring analyte concentration
        in biol. fluid)
IT
     Pore size
        (of anisotropic membrane for reagent matrix; multi-layer
        reagent test strip for measuring analyte concentration in biol. fluid)
TT
     Membranes, nonbiological
        (polyamide, as reagent matrix; multi-layer reagent
        test strip for measuring analyte concentration in biol. fluid)
IT
     Dves
        (precursor, as reagent for glucose; multi-layer
        reagent test strip for measuring analyte concentration in biol. fluid)
TT
     Adhesives
        (pressure-sensitive, attaching spreading mesh and reagent
        matrix to support; multi-layer reagent test strip for
        measuring analyte concentration in biol. fluid)
IT
     Colored materials
        (spreading mesh as brightly; multi-layer reagent test strip
        for measuring analyte concentration in biol. fluid)
TT
     Fluorescence
     Hydrophilicity
        (spreading mesh having; multi-layer reagent test strip for
        measuring analyte concentration in biol. fluid)
TT
     Polyamide fibers, uses
     Polyester fibers, uses
     RL: DEV (Device component use); TEM (Technical or engineered material
     use); USES (Uses)
        (spreading mesh of; multi-layer reagent test strip for
        measuring analyte concentration in biol. fluid)
IT
     Plastic films
        (thermo-, support; multi-layer reagent test strip for
        measuring analyte concentration in biol. fluid)
```

```
82-76-8, 8-Anilino-1-naphthalene sulfonic acid 4338-98-1,
IT
     3-Methyl-2-benzothiazolinone hydrazone hydrochloride 53175-72-7,
     Dimethylaminobenzoic acid 203000-68-4
     RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
        (in dye precursor for glucose determination; multi-layer reagent test
        strip for measuring analyte concentration in biol. fluid)
TТ
     50-99-7, D-Glucose, analysis
     RL: ANT (Analyte); ANST (Analytical study)
        (multi-layer reagent test strip for measuring analyte concentration
        in biol. fluid)
RE.CNT
             THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Carroll; US 5296192 A 1994 HCAPLUS
(2) Churchouse; US 5310525 A 1994 HCAPLUS
(3) Cunningham; US 6071251 A 2000
(4) Kawanishi; US 5215712 A 1993 HCAPLUS
(5) Kitajima; US 4292272 A 1981 HCAPLUS
(6) Kondo; US 4631174 A 1986
(7) Macho: US 5827477 A 1998
(8) Matzinger; US 5968836 A 1999 HCAPLUS
(9) Mori; US 5709837 A 1998 HCAPLUS
(10) Phillips; US 4935346 A 1990 HCAPLUS
(11) Phillips; US 5304468 A 1994 HCAPLUS
(12) Saito; US 5200148 A 1993 HCAPLUS
=> d all 149 tot
L49 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN
AN
     2002:251888 HCAPLUS
DN
     136:259544
    Entered STN: 04 Apr 2002
ED
     Arrays of protein-capture agents and methods of use thereof
TI
     Wagner, Peter; Nock, Steffen; Ault-Riche, Dana; Itin, Christian
IN
     Zyomyx, Incorporated, USA
PA
     U.S., 33 pp., Cont.-in-part of U.S. Ser. No. 115,455.
     CODEN: USXXAM
DT
     Patent
     English
LΑ
     ICM G01N033-543
IC
INCL 436518000
     9-1 (Biochemical Methods)
FAN.CNT 7
                                          APPLICATION NO.
                               DATE
                                                                  DATE
     PATENT NO.
                        KIND
                               _____
                                           _____
                         - - - <del>-</del>
                                20020402 US 2000-574748 20000518 <--
     US 6365418
                        B1
PΙ
                                                                 19980714
                                20020618 US 1998-115455
                        B1
     US 6406921
                        AA 20000127 CA 1999-2507754
B1 20021105 US 2000-570588
A1 20030102 US 2002-107122
     CA 2507754
                                                               19990714 <--
20000512 <--
                                           US 2000-570588
US 2002-107122
     US 6475809
    US 2003003599
US 2002106702
US 2005008674
                                                                  20020326 <--
                       A1 20030102 US 2002-107122
A1 20020808 US 2002-112840
                                                                  20020329 <--
                        A1
                              20050113 US 2004-911945
                                                                  20040804 <--
                               20050120 US 2004-911877
DE 2005014292
PRAI US 1998-115455
CA 1999 0000
                                                                  20040804 <--
                        A1
                       A2 19980714 <--
     CA 1999-2337075 A3
                                19990714 <--
19990714 <--
     US 1999-353555
US 2000-574748
US 2002-112840
                         A3
                        A1
                                20000518 <--
                         A1
                                20020329
                CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
                        ______
                 _ _ _ _
 US 6365418 ICM
                        G01N033-543
                INCL
                        436/518.000; 427/002.110; 427/134.000; 427/261.000;
 US 6365418
                NCL
                        427/287.000; 427/387.000; 427/407.200; 427/518.000;
```

```
435/007.100; 435/286.100; 435/287.100; 435/287.900;
                        435/288.300; 435/288.400; 436/524.000; 436/525.000;
                        436/527.000; 436/528.000; 436/532.000; 436/533.000;
                        436/535.000; 436/536.000
                 ECLA
                        G01N033/543M; G01N033/551
US 6406921
                 NCL
                        436/518.000; 427/134.000; 427/261.000; 427/287.000;
                        427/387.000; 427/407.200; 427/518.000; 435/007.100;
                        435/287.100; 435/287.900; 435/288.300; 435/288.400;
                        436/524.000; 436/525.000; 436/527.000; 436/528.000;
                        436/532.000; 436/533.000; 436/535.000; 436/536.000
                 ECLA
                        G01N033/543M; G01N033/551
                        436/518.000; 422/068.100; 435/004.000; 435/007.100;
US 6475809
                 NCL
                        436/501.000; 436/524.000
                 ECLA
                        G01N033/543M; G01N033/551
US 2003003599
                 NCL
                        436/518.000
                 ECLA
                        G01N033/543M; G01N033/551
US 2002106702
                 NCL
                        435/007.900
                        G01N033/543M; G01N033/551
                 ECLA
                                                                             c - -
                        424/423.000
US 2005008674
                 NCL
                        G01N033/543M; G01N033/551
                 ECLA
                                                                             <---
US 2005014292
                 NCL
                        436/518.000
                 ECLA
                        G01N033/543M; G01N033/551
    Arrays of protein-capture agents useful for the simultaneous detection of
     a plurality of proteins which are the expression products, or fragments
    thereof, of a cell or population of cells in an organism are provided. A
     variety of antibody arrays, in particular, are described. Methods of both
    making and using the arrays of protein-capture agents are also disclosed.
     The invention arrays are particularly useful for various proteomics
     applications including assessing patterns of protein expression and
     modification in cells.
ST
     array protein capture agent
     Chemical chains
IT
     Monolayers
        (Hydrophilic; arrays of protein-capture agents and methods of use
        thereof)
TT
     Reagents
    RL: ARG (Analytical reagent use); DEV (Device component use); ANST
     (Analytical study); USES (Uses)
        (Protein-capture; arrays of protein-capture agents and methods of use
        thereof)
TT
     Cell
     Chemisorption
     Hydrophilicity
       Hydrophobicity
     Interface
     Photolithography
     Physisorption
        (arrays of protein-capture agents and methods of use thereof)
IT
     Proteins
     Proteome
     RL: ANT (Analyte); BSU (Biological study, unclassified); ANST
     (Analytical study); BIOL (Biological study)
        (arrays of protein-capture agents and methods of use thereof)
     Antibodies and Immunoglobulins
TT
     RL: ARG (Analytical reagent use); DEV (Device component use); ANST
     (Analytical study); USES (Uses)
        (arrays of protein-capture agents and methods of use thereof)
IT
     Analytical apparatus
        (arrays; arrays of protein-capture agents and methods of use thereof)
IT
     Bond
        (covalent; arrays of protein-capture agents and methods of use thereof)
TT
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (expression; arrays of protein-capture agents and methods of use
        thereof)
     Antibodies and Immunoglobulins
TT
```

```
RL: ANT (Analyte); ANST (Analytical study)
        (fragments; arrays of protein-capture agents and methods of use
        thereof)
IT
    Monolayers
        (hydrophobic; arrays of protein-capture agents and methods of
        use thereof)
TΤ
    Animal cell
        (mammalian; arrays of protein-capture agents and methods of use
        thereof)
IT
     Immobilization, molecular or cellular
        (protein; arrays of protein-capture agents and methods of use thereof)
             THERE ARE 125 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
        125
RE
(1) Allara; US 4690715 A 1987 HCAPLUS
(2) Anon; DE 3939973 A1 1991 HCAPLUS
(3) Anon; WO 9116425 1991 HCAPLUS
(4) Anon; WO 9321528 1993 HCAPLUS
(5) Anon; EP 596421 A1 1994 HCAPLUS
(6) Anon; JP 6041183 1994
(7) Anon; WO 9850773 1994 HCAPLUS
(8) Anon; JP 7084372 1995
(9) Anon; WO 9508770 1995 HCAPLUS
(10) Anon; WO 9535505 1995 HCAPLUS
(11) Anon; WO 9602830 1996 HCAPLUS
(12) Anon; WO 9610178 1996 HCAPLUS
(13) Anon; WO 9626432 1996 HCAPLUS
(14) Anon; WO 9629629 1996 HCAPLUS
(15) Anon; WO 9638726 1996 HCAPLUS
(16) Anon; WO 9639937 1996
(17) Anon; DE 19543232 A1 1997 HCAPLUS
(18) Anon; EP 780423 A2 1997 HCAPLUS
(19) Anon; WO 9707429 1997 HCAPLUS
(20) Anon; WO 9721094 1997 HCAPLUS
(21) Anon; WO 9733737 1997
(22) Anon; WO 9736681 1997 HCAPLUS
(23) Anon; WO 9741424 1997 HCAPLUS
(24) Anon; WO 9741425 1997 HCAPLUS
(25) Anon; WO 9823948 1998 HCAPLUS
(26) Anon; WO 9839481 1998 HCAPLUS
(27) Anon; WO 9843086 1998 HCAPLUS
(28) Anon; Patent Abstracts of Japan 1991, V015(034), Pc-0799
(29) Bamdad; US 5620850 A 1997 HCAPLUS
(30) Barrett; US 5252743 A 1993 HCAPLUS
(31) Beattie; US 5843767 A 1998 HCAPLUS
(32) Becker; Microelectronic Engineering 1986, V4, P35 HCAPLUS
(33) Becker; Naturwissenschaften 1982, V69, P520
(34) Beebe; US 5472881 A 1995 HCAPLUS
(35) Bergstrom; US 5242828 A 1993 HCAPLUS
(36) Chee; US 5837832 A 1998 HCAPLUS
(37) Chee; US 5861242 A 1999 HCAPLUS
(38) Cherukuri; US 5603351 A 1997 HCAPLUS
(39) Chrisey; US 5688642 A 1997 HCAPLUS
(40) Cload; Chemistry & Biology 1996, V3, P1033 HCAPLUS
(41) Colapicchioni; US 5160597 A 1992 HCAPLUS
(42) Collioud; Bioconjugate Chem 1993, V4, P528 HCAPLUS
(43) Condra; Nature 1995, V374, P569 HCAPLUS
(44) Dammer; Biophysical Journal 1996, V70, P2437 HCAPLUS
(45) Dawson; Journal of Molecular Recognition 1997, V10, P18 HCAPLUS
(46) Duschl; Biophysical Journal 1996, V70, P1985 HCAPLUS
(47) Elkins; Clin Chem 1991, V37(11), P1955
(48) Ellman; Methods in Enzymology 1991, V202, P301 HCAPLUS
(49) Fodor; US 5445934 A 1995 HCAPLUS
(50) Fodor; US 5510270 A 1996 HCAPLUS
(51) Fodor; US 5744305 A 1998 HCAPLUS
(52) Fuji Photo Film Co Ltd; JP 02272081 A 1990 HCAPLUS
(53) Geoghegan; FEBS 1990, V262, P119 HCAPLUS
```

- (54) Guire; US 4973493 A 1990 HCAPLUS
- (55) Hanagan; US 5520787 A 1996 HCAPLUS
- (56) Hegner; FEBS 1993, V336(3), P452 HCAPLUS
- (57) Hegner; J Vac Sci Technol B 1996, V14(2), P1418 HCAPLUS
- (58) Hegner; Surface Science 1993, V291, P39 HCAPLUS
- (59) Heller; US 5605662 A 1997 HCAPLUS
- (60) Herron; US 5512492 A 1996 HCAPLUS
- (61) Herron; US 5677196 A 1997 HCAPLUS
- (62) Ho; Journal of Virology 1994, V68, P2016 HCAPLUS
- (63) Hochuli; Biotechnology 1988, V6, P1321 HCAPLUS
- (64) Hutchens; US 5719060 A 1998 HCAPLUS
- (65) Kadish; US 4722896 A 1988 HCAPLUS
- (66) Kallury; US 5405766 A 1995 HCAPLUS
- (67) Kaplan; Proc Natl Acad Sci USA 1994, V91, P5597 HCAPLUS
- (68) Keogh; US 5925552 A 1999 HCAPLUS
- (69) Korant; Advances in Experimental Medicine and Biology 1997, V421, P279 **HCAPLUS**
- (70) Kornguth; US 5629213 A 1997 HCAPLUS
- (71) Kumar; US 5512131 A 1996
- (72) Leaback; US 5096807 A 1992
- (73) Lemmo; Anal Chem 1997, V69, P543 HCAPLUS
- (74) Linford; US 5429708 A 1995 HCAPLUS
- (75) Linford; J Am Chem Soc 1996, V117, P3145
- (76) Loeb; Nature 1989, V340, P397 HCAPLUS
- (77) Louis; Eur J Biochem 1991, V199, P361 HCAPLUS
- (78) Lowe; US 4562157 A 1985 HCAPLUS
- (79) Maracas; US 5731152 A 1998 HCAPLUS
- (80) Marks; J Mol Biol 1991, V222, P581 HCAPLUS
- (81) McGall; US 5412087 A 1995 HCAPLUS
- (82) Messing; US 4071409 A 1978 HCAPLUS
- (83) Monforte; US 5700642 A 1997 HCAPLUS
- (84) Moore; Biochemical and Biophysical Research Communications 1989, V159, P420 HCAPLUS
- (85) Mrksich; Proc Natl Acad Sci USA 1996, V93, P10775 HCAPLUS
- (86) Nock; FEBS 1997, V414, P233 HCAPLUS
- (87) Nock; FEBS Letters 1997, V414, P233 HCAPLUS
- (88) Noren; Science 1989, V244, P182 HCAPLUS
- (89) Pace; US 4908112 A 1990 HCAPLUS
- (90) Pirrung; US 5143854 A 1992 HCAPLUS
- (91) Pirrung; US 5405783 A 1995 HCAPLUS
- (92) Prime; Science 1991, V252, P1164 HCAPLUS
- (93) Ribi; US 5342692 A 1994
- (94) Roberts; Science 1990, V248, P358 HCAPLUS
- (95) Schnur; US 5079600 A 1992 HCAPLUS
- (96) Schock; The Journal of Biological Chemistry 1996, V271, P31957 HCAPLUS
- (97) Shigekawa; US 5294369 A 1994 HCAPLUS
- (98) Singhvi; Science 1994, V264, P696 HCAPLUS
- (99) Skalka; Cell 1989, V56, P911 HCAPLUS
- (100) Stennicke; The Journal of Biological Chemistry 1997, V272, P25719 HCAPLUS
- (101) Sundberg; US 5624711 A 1997
- (102) Sundberg; J Am Chem Soc 1995, V117, P12050 HCAPLUS
- (103) Swedberg; US 5571410 A 1996 HCAPLUS (104) Talanian; The Journal of Biological Chemistry 1997, V272, P9677 HCAPLUS
- (105) Tarlov; US 5514501 A 1996 HCAPLUS
- (106) Thornberry; Methods in Enzymology 1994, V244, P615 HCAPLUS
- (107) Tsutomu; US 4987032 A 1991 HCAPLUS
- (108) Tsutomu; US 5154808 A 1992 HCAPLUS
- (109) Ulmer; US 5776674 A 1998 HCAPLUS
- (110) Varma; US 5622826 A 1997 HCAPLUS
- (111) Villa; TIBS 1997, V22, P388 HCAPLUS
- (112) Wagner; Biophysical Journal 1996, V70, P2052 HCAPLUS (113) Wagner; J Vac Sci Technol B 1996, V14(2), P1466 HCAPLUS
- (114) Wagner; Journal of Structural Biology 1997, V119, P189 HCAPLUS (115) Wagner; Langmuir 1995, V11(10), P3867 HCAPLUS
- (116) Weiner; Gene 1994, V151, P119 HCAPLUS
- (117) Wilding; US 5635358 A 1997 HCAPLUS

```
(118) Wilding; US 5637469 A 1997 HCAPLUS
(119) Wilson; Nature 1994, V370, P270 HCAPLUS
(120) Winkler; US 5384261 A 1995 HCAPLUS
(121) Winkler; US 5677195 A 1997 HCAPLUS
(122) Wondrak; Biochemistry 1996, V35, P12957 HCAPLUS
(123) Wu; Biochemistry 1998, V37, P4518 HCAPLUS
(124) Zanzucchi; US 5593838 A 1997 HCAPLUS
(125) Zanzucchi; US 5681484 A 1997 HCAPLUS
L49 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN
AN
     2000:754453 HCAPLUS
DN
     133:277164
     Entered STN: 26 Oct 2000
ED
    Multiple micro-arrays
TT
IN
    Leighton, Stephen B.
PA
    U.S., 9 pp., Cont.-in-part of U.S. Ser. No. 344,544.
SO
     CODEN: USXXAM
DТ
     Patent
    English
T.A
     ICM C12M003-00
     ICS C12Q001-68; G01N021-00
INCL 435288700
     3-1 (Biochemical Genetics)
     Section cross-reference(s): 9
FAN.CNT 1
                                            APPLICATION NO.
     PATENT NO.
                        KIND DATE
                                                                     DATE
     US 6136592
                                                                      -----
                         ----
                                               _____
                                 20001024 US 1999-413956
20020418 CA 2000-2425634
                          Α
ΡI
                                                                       19991007 <--
                         AA 20020418 CA 2000-2425634
A1 20020418 WO 2000-US27925
                                                                       20001010 <--
     CA 2425634
     WO 2002031106
                                                                      20001010 <--
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
              YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 2000080042 A5 20020422 AU 2000-80042
EP 1325108 A1 20030709 EP 2000-970705
                                                                       20001010 <--
                                                                      20001010 <--
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL
     JP 2004511761
                      T2 20040415 JP 2002-534477
                                                                      20001010 <--
                           A2
                                            <--
PRAI US 1999-344544
                                  19990625
     WO 2000-US27925
                           W
                                  20001010 <--
CLASS
 PATENT NO.
                CLASS PATENT FAMILY CLASSIFICATION CODES
                ____
 US 6136592 ICM C12M003-00
                 ICS
                        C12Q001-68; G01N021-00
                  INCL
                        435288700
                         435/288.700; 422/050.000; 422/058.000; 435/006.000;
                 NCL
 US 6136592
                         435/287.200
                 ECLA
                         B01L003/00C6M; C12M003/04
                                                                                 <--
                         B01L003/00C6M; C12M003/04
                                                                                 <--
 WO 2002031106 ECLA B01L003/00C6M; C12M003/04
JP 2004511761 FTERM 4B024/AA11; 4B024/AA19; 4B024/AA20; 4B024/CA01;
 WO 2002031106 ECLA
                         4B024/CA04; 4B024/CA09; 4B024/CA11; 4B024/HA13;
                         4B024/HA14; 4B024/HA20; 4B029/AA07; 4B029/AA23;
                         4B029/BB20; 4B029/CC01; 4B029/CC02; 4B029/CC03;
                         4B029/CC08; 4B029/FA12; 4B029/FA15
     A method and device are provided for simultaneously creating a plurality
AB
     of identical micro-arrays of biol. samples. The invention utilizes a
     plurality of substrates, each of which having a top side, a bottom side,
     and a pattern of through-holes. Each through-hole has a wider upper
```

```
cross-section, a narrower lower cross-section, and a step or plateau
     formed in the transition area. When the substrates are stacked,
     through-holes are in registry and form tunnels extending through the stack
     of substrates. Reagents of interest are caused to flow through
     the tunnels and deposit on the step or plateau area. A barrier layer may
     be provided to prevent leak-through between neighboring holes. After the
     desired reagents have been deposited, the substrates are separated
     In this manner a series of micro-arrays, each capable of containing hundreds
     or thousands of biol. samples such as cDNA fragments, is formed
     simultaneously.
ST
    micro array
TT
    Analytical apparatus
        (Multiple micro-arrays; multiple micro-arrays)
IT
    Viscous materials
        (hydrophobic; multiple micro-arrays)
IT
     Biological materials
     Flow
     Fluids
     Nucleic acid hybridization
     Tunnels
        (multiple micro-arrays)
TΤ
     CDNA
     RL: ANT (Analyte); ARG (Analytical reagent use); DEV (Device
     component use); ANST (Analytical study); USES (Uses)
        (multiple micro-arrays)
    Reagents
TT
     RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
        (multiple micro-arrays)
     Glass, uses
IT
     RL: DEV (Device component use); USES (Uses)
        (multiple micro-arrays)
     Synthetic rubber, uses
TΤ
     RL: DEV (Device component use); USES (Uses)
        (polymeric; multiple micro-arrays)
TT
     Sealing
        (water impermeable; multiple micro-arrays)
IT
     Adhesives
        (weak; multiple micro-arrays)
     7440-21-3, Silicon, uses
TТ
     RL: DEV (Device component use); USES (Uses)
        (multiple micro-arrays)
              THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
       3
RE
(1) Fodor; US 5800992 1998 HCAPLUS
(2) Kricka; US 5744366 1998
(3) Wilding; US 5486335 1996 HCAPLUS
L49 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN
AN
     2000:493753 HCAPLUS
DN
     133:101716
     Entered STN: 21 Jul 2000
ED
TI
     Disposable test strips with integrated reagent/blood separation
     Mcaleer, Jerome F.; Scott, David; Hall, Geoff; Alvarez-Icaza, Manuel;
IN
     Plotkin, Elliott V.; Davies, Oliver W. H.
PΑ
     Selfcare, Inc., USA
     PCT Int. Appl., 33 pp.
SO
     CODEN: PIXXD2
DT
     Patent
T.A
     English
     ICM G01N027-26
IC
     9-1 (Biochemical Methods)
CC
FAN.CNT 3
                                            APPLICATION NO.
                                                                   DATE
     PATENT NO.
                         KIND
                                DATE
     -----
                         ----
                                                                   20000111 <--
                          A1
                                20000720
                                            WO 2000-US620
     WO 2000042422
```

```
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
            CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
            IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
            MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
            SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
            DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
            CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    US 6241862
                               20010605
                         R1
                                           US 1999-228855
                                                                  19990112 <--
     CA 2358464
                         AA
                               20000720
                                           CA 2000-2358464
                                                                  20000111 <--
    BR 2000008615
                         Α
                               20011016
                                           BR 2000-8615
                                                                  20000111 <--
    EP 1155310
                                          EP 2000-906895
                               20011121
                         A1
                                                                  20000111 <--
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
    JP 2002535615
                        T2
                               20021022
                                           JP 2000-593945
                                                                  20000111 <--
    JP 3699898
                               20050928
                         B2
    AU 763723
                         B2
                               20030731
                                           AU 2000-28479
                                                                  20000111 <--
PRAI US 1999-228855
                        Δ1
                               19990112 <--
    US 1996-601223
                        A1
                              19960214 <--
    US 1998-5710
                        A2
                               19980112 <--
    WO 2000-US620
                         W
                               20000111 <--
CLASS
                CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
                _____
 WO 2000042422
                ICM
                       G01N027-26
 WO 2000042422
                ECLA C12Q001/00B6B; C12Q001/00B4; C12Q001/54; G01N033/487B2
                       204/403.050; 204/403.110; 204/415.000; 427/002.130
US 6241862
                       C12Q001/00B2; C12Q001/00B4; G01N033/50B
                ECLA
AB
    An improved disposable glucose test strip is disclosed for use in a test
    meter of the type which receives a disposable test strip and a sample of
    blood from a patient and performs an electrochem. anal. using a
    non-conductive integrated reagent/blood separation layer (17) containing
    a filler, an enzyme effective to oxidize glucose, e.g., glucose oxidase,
    and a mediator effective to transfer electrons from the enzyme. The
    integrated layer formulation is printed over a conductive carbon element
     (16) to form a working electrode. The filler, for example a silica
     filler, is selected to have a balance of hydrophobicity such
    that on drying it forms a two-dimensional network on the surface of the
    conductive element. The response of this test strip is essentially temperature
    independent over relevant temperature ranges and is substantially insensitive to
    the hematocrit of the patient.
ST
    disposable test strip integrated reagent blood sepn layer;
    glucose test strip independent temp hematocrit
IT
    Polyesters, uses
    RL: DEV (Device component use); USES (Uses)
        (as substrate; disposable test strips with integrated reagent
       /blood separation layer)
TТ
    Analytical apparatus
    Blood analysis
    Electrochemical analysis
    Electrodes
    Fillers
    Films
    Glucose sensors
        (disposable test strips with integrated reagent/blood separation
       layer)
    Enzymes, biological studies
тт
      Reagents
    RL: ARG (Analytical reagent use); DEV (Device component use); THU
     (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES
        (disposable test strips with integrated reagent/blood separation
       layer)
IT
    Blood cell
```

```
(exclusion of; disposable test strips with integrated reagent
        /blood separation layer)
IT
     Electric insulators
        (layer of; disposable test strips with integrated reagent
        /blood separation layer)
     Separation
IT
        (of blood, layer for; disposable test strips with integrated
        reagent/blood separation layer)
IT
        (separation layer for; disposable test strips with integrated
        reagent/blood separation layer)
IT
     Hematocrit
     Temperature
        (test strip response insensitive to; disposable test strips with
        integrated reagent/blood separation layer)
     256219-76-8, Ercon R 488B(HV)B2 Blue
IT
     RL: DEV (Device component use); USES (Uses)
        (as dielec. layer; disposable test strips with integrated
        reagent/blood separation layer)
IT
     13408-62-3, Ferricyanide
     RL: ARU (Analytical role, unclassified); DEV (Device component use); THU
     (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES
     (Uses)
        (as redox mediator; disposable test strips with integrated
        reagent/blood separation layer)
     7440-44-0, Carbon, uses
IT
     RL: DEV (Device component use); USES (Uses)
        (conductive element of; disposable test strips with integrated
        reagent/blood separation layer)
TТ
     50-99-7, D-Glucose, analysis
     RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical
     study); BIOL (Biological study); USES (Uses)
        (disposable test strips with integrated reagent/blood separation
        layer)
IT
     9001-37-0, Glucose oxidase
     RL: ARG (Analytical reagent use); DEV (Device component use); THU
     (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES
        (disposable test strips with integrated reagent/blood separation
        laver)
     9004-62-0, Hydroxyethyl cellulose
IT
     RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST
     (Analytical study); USES (Uses)
        (disposable test strips with integrated reagent/blood separation
        layer)
     13746-66-2, Potassium hexacyanoferrate(III)
TΤ
     RL: ARU (Analytical role, unclassified); DEV (Device component use); THU
     (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES
     (Uses)
        (disposable test strips with integrated reagent/blood separation
        layer)
TΤ
     7631-86-9, Silica, uses
     RL: DEV (Device component use); USES (Uses)
        (disposable test strips with integrated reagent/blood separation
TT
     68-04-2, Trisodium citrate
                                 77-92-9, Citric acid, analysis
                                                                    9002-89-5,
                       25086-89-9
     Polyvinyl alcohol
     RL: ARU (Analytical role, unclassified); PEP (Physical, engineering or
     chemical process); THU (Therapeutic use); ANST (Analytical study); BIOL
     (Biological study); PROC (Process); USES (Uses)
        (in ink for printing glucose test strips; disposable test strips with
        integrated reagent/blood separation layer)
     158766-37-1, Cab-o-Sil TS610
                                   284025-29-2, Spherisorb C4
TΤ
     RL: DEV (Device component use); USES (Uses)
        (nonconductive layer containing; disposable test strips with integrated
        reagent/blood separation layer)
```

```
THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 3
RE
(1) Jones; EP 0207370 A2 1987 HCAPLUS
(2) Maley; US 5601694 A 1997 HCAPLUS
(3) Nankai; US 5185256 A 1993 HCAPLUS
=> b wpix:d all 133 tot
FILE 'WPIX' ENTERED AT 10:23:10 ON 21 OCT 2005
COPYRIGHT (C) 2005 THE THOMSON CORPORATION
FILE LAST UPDATED:
                            19 OCT 2005
                                             <20051019/UP>
MOST RECENT DERWENT UPDATE: 200567
                                              <200567/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE
>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE.
    PLEASE VISIT:
 http://www.stn-international.de/training center/patents/stn_guide.pdf <<<
>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
    http://thomsonderwent.com/coverage/latestupdates/
                                                                <<<
>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER
    GUIDES, PLEASE VISIT:
    http://thomsonderwent.com/support/userguides/
                                                                <<<
>>> NEW! FAST-ALERTING ACCESS TO NEWLY-PUBLISHED PATENT
    DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX
    FIRST VIEW - FILE WPIFV.
    FOR FURTHER DETAILS: http://www.thomsonderwent.com/dwpifv <<<
>>> THE CPI AND EPI MANUAL CODES HAVE BEEN REVISED FROM UPDATE 200501.
    PLEASE CHECK:
http://thomsonderwent.com/support/dwpiref/reftools/classification/code-revision/
    FOR DETAILS. <<<
'BIX BI, ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE
L33 ANSWER 1 OF 9 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
     2004-787112 [78]
                       WPIX
AN
                        DNC C2004-275357
DNN N2004-620447
     Test strip for use in detection of analyte, e.g. blood glucose in liquid
     sample, e.g. whole blood sample, comprises base support layer, and reagent
     pad disposed on base support layer.
     B04 D16 S03
DC
     MATZINGER, D P; SHARTLE, R J
IN
     (LIFE-N) LIFESCAN INC; (MATZ-I) MATZINGER D P; (SHAR-I) SHARTLE
DΔ
     RJ
CYC 38
PΤ
     EP 1473563
                    A2 20041103 (200478)* EN 14
                                                      G01N033-52
         R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU
            LV MC MK NL PL PT RO SE SI SK TR
                  A1 20041029 (200478) EN
                                                      G01N033-52
     CA 2465799
                                                      G01N033-543
     JP 2004325456
                   A 20041118 (200478)
                                                17
                                                      G01N033-543
     US 2004219691 A1 20041104 (200478)
                    A 20041201 (200516)
A 20041106 (200517)
                                                      G01N021-29
     CN 1550771
                                                      G01N033-487
     KR 2004093628
    EP 1473563 A2 EP 2004-252450 20040428; CA 2465799 A1 CA 2004-2465799
TOA
     20040429; JP 2004325456 A JP 2004-133925 20040428; US 2004219691 A1 US
     2003-426457 20030429; CN 1550771 A CN 2004-45161 20040429; KR 2004093628 A
     KR 2004-30135 20040429
PRAI US 2003-426457
                          20030429
     ICM G01N021-29; G01N033-487; G01N033-52; G01N033-543
IC
     ICS C12M001-34; G01N021-78; G01N033-558
AΒ
         1473563 A UPAB: 20041206
```

```
NOVELTY - A test strip has base support layer (102), and reagent pad (104)
     disposed on base support layer. A portion of the base support layer in
     proximity to the reagent pad is formed of a clear material such that a
     user can perceive the liquid sample through the base support layer during
     application of the liquid sample to the pad.
          USE - The test strip is useful for the detection of an analyte, e.g.
     blood glucose in liquid sample, e.g. whole blood sample (claimed).
          ADVANTAGE - The invention is easy to manipulate and provides for user
     perception of the liquid sample during its application to the test strip.
     It is simple to manufacture and prevents excess liquid sample from
     creating an untidy condition or contaminating an associated device.
          DESCRIPTION OF DRAWING(S) - The figure is a simplified depiction of a
     manner by which the user can perceive the liquid sample through the test
     strip.
          Base support layer 102
     Reagent pad 104
     Dwg.2/9
FS
     CPI EPI
FA
    AB; GI; DCN
MC
     CPI: B04-B04D5; B10-A07; B11-C08; B12-K04A; D05-H09
     EPI: S03-E04E; S03-E14H1
L33 ANSWER 2 OF 9 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
     2004-614823 [59]
                        WPIX
DNC C2004-221447
     Test strip for determining analyte concentration in physiological sample
     e.g. glucose in blood comprises hydrophobic barrier separating
     reaction zones.
DC
     B04 D16 J04
     SIU YU, Y
(YUYY-I) SIU YU Y
IN
PΑ
CYC 1
     US 2004161365 A1 20040819 (200459)*
                                                      C12Q001-66
                                                16
PΙ
ADT US 2004161365 A1 Div ex US 2001-11000 20011205, US 2004-783749 20040219
FDT
    US 2004161365 A1 Div ex US 6723500
                          20011205; US 2004-783749
                                                         20040219
PRAI US 2001-11000
     ICM C12Q001-66
IC
     US2004161365 A UPAB: 20040915
     NOVELTY - A test strip comprising reaction zones (20 - 22) defined by a
     barrier comprising hydrophobic ink and a reagent composition
     comprising at least one member of an analyte oxidation based signal
     producing system present in each reaction zone, is new.
          DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:
          (1) manufacturing the reaction zones of the strip; and
          (2) a kit comprising the test strip(s) and instructions for using the
     strip.
          USE - The test strip is useful for determining concentration of at
     least one analyte in a physiological sample e.g. glucose concentration
     (claimed) in blood.
          ADVANTAGE - Contamination of reaction zones is minimized or
     eliminated. The test strip is easy to use and manufactured easily at low
     cost. The results are accurate, precise and reproducible.
          DESCRIPTION OF DRAWING(S) - The figure shows perspective view of the
     test strip.
          Reaction zones 20 - 22
     Bottom layer 30
          Intermediate layer 500
     Dwg.3/5
FS
     CPI
     AB; GI; DCN
FA
MC
     CPI: B04-B04D5; B10-A07; B11-C08; B11-C09; B12-K04A;
          D05-H09; J04-B01B; J04-C04
     ANSWER 3 OF 9 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
L33
     2004-356199 [33]
                        WPIX
AN
DNC C2004-135369
```

```
TI
     Producing tissue factor-based prothrombin time (PT) reagent by combining
     tissue factor (TF), phospholipid, detergent-containing buffer to create
     TF/phospholipid mixture, removing detergent, creating tissue factor-based
     PT reagent.
חכ
     B04 D16
IN
     EARP, B; HALEY, P; JENNY, R; HALEY, P E
     (LIFE-N) LIFESCAN INC; (EARP-I) EARP B; (HALE-I) HALEY P E;
DΔ
     (JENN-I) JENNY R
CYC
     US 2004086953
                    A1 20040506 (200433)*
                                                      C120001-56
DТ
                                                 8
     EP 1418435
                     A1 20040512 (200433) EN
                                                      G01N033-86
         R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV
            MC MK NL PT RO SE SI SK TR
                    A1 20040505 (200436)
                                                      C12Q001-56
     JP 2004157122
                    A 20040603 (200436)
                                                13
                                                      G01N033-86
     KR 2004040384
                   A 20040512 (200459)
                                                      C120001-56
                    A 20040825 (200477)
     CN 1523358
                                                      G01N033-86
    US 2004086953 A1 US 2002-288249 20021105; EP 1418435 A1 EP 2003-256966
ADT
     20031104; CA 2448188 A1 CA 2003-2448188 20031105; JP 2004157122 A JP
     2003-374727 20031104; KR 2004040384 A KR 2003-78000 20031105; CN 1523358 A
     CN 2003-1120463 20031105
PRAI US 2002-288249
                          20021105
     ICM C12Q001-56; G01N033-86
     ICS C07K014-745; C12Q001-37
AB
     US2004086953 A UPAB: 20040525
     NOVELTY - Producing (M1) tissue factor-based prothrombin time (PT)
     reagent, by combining predetermined quantities of tissue factor (TF),
     phospholipid and detergent-containing buffer to create a mixture, where
     predetermined quantity of TF is based on its measured TF activity,
     removing detergent from the mixture to create essentially detergent-free
     TF/phospholipid vesicle mixture and creating tissue factor-based PT
     reagent.
          DETAILED DESCRIPTION - Producing (M1) tissue factor-based prothrombin
     time (PT) reagent, by combining predetermined quantities of tissue factor
     (TF), phospholipid and detergent-containing buffer to create
     TF/phospholipid mixture, where predetermined quantity of TF is based on
     its measured TF activity, removing detergent from TF/phospholipid mixture
     to create essentially detergent-free TF/phospholipid vesicle mixture and
     creating tissue factor-based PT reagent.
          USE - (M1) is useful for producing tissue factor-based prothrombin
     time (PT) reagent (claimed).
          ADVANTAGE - (M1) is efficient and simple in producing tissue
     factor-based prothrombin time (PT) reagent at reproducible yield and
     provides for acceptance testing of the produced PT reagent.
          DESCRIPTION OF DRAWING(S) - The figure shows a flow chart
     representing the production of tissue factor-based prothrombin time
     reagent.
     Dwg.1/3
FS
     CPI
FA
     AB; GI; DCN
MC
     CPI: B04-B01B; B04-H1900E; B05-B01P; B11-C07B3; B12-K04E;
    ANSWER 4 OF 9 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
L33
     2003-879928 [82]
                        WPIX
AN
DNN
    N2003-702378
                        DNC C2003-249069
ΤI
     Multilayer test strip comprising, blood separation element, protease layer
     in fluid communication with the element, and ketoamine oxidase signal
     producing system layer in fluid communication with the protease layer.
DC
     B04 D16 S03
IN
    GUO, S; LEONG, K; QIAN, S
     (LIFE-N) LIFESCAN INC; (LIFE-N) LIFESCAN CORP;
PΑ
     (GUOS-I) GUO S; (LEON-I) LEONG K; (QIAN-I) QIAN S
CYC
    37
                     A1 20031112 (200382)* EN
PΙ
    EP 1361436
                                                18
                                                      G01N033-543
         R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV
```

```
MC MK NL PT RO SE SI SK TR
     US 2003211564 A1 20031113 (200382)
                                                       C12Q001-37
                                                                       <--
     CA 2428482
                    A1 20031110 (200403)
                                                       C12Q001-37
                                                                       <--
     JP 2004004071 A 20040108 (200405)
CN 1456680 A 20031119 (200412)
                                                       G01N033-48
                                                 51
                                                                      <--
                                                       C12Q001-37
                                                                       <--
                     A1 20041029 (200476)
     SG 106684
                                                       G01N033-54
                    I2 20041204 (200531)
     IN 2003000217
                                                       G01N033-48
                                           EN
                                                                      <--
                    B2 20051004 (200565)
                                                                      <--
     US 6951728
                                                       C12Q001-54
ADT EP 1361436 A1 EP 2003-252921 20030509; US 2003211564 A1 US 2002-144562
     20020510; CA 2428482 A1 CA 2003-2428482 20030509; JP 2004004071 A JP
     2003-131819 20030509; CN 1456680 A CN 2003-131247 20030508; SG 106684 A1
     SG 2003-2468 20030430; IN 2003000217 I2 IN 2003-KO217 20030411; US 6951728
     B2 US 2002-144562 20020510
PRAI US 2002-144562
                          20020510
     ICM C12Q001-37; C12Q001-54; G01N033-48;
          G01N033-54; G01N033-543
     ICS C12M001-34; C12Q001-00; C12Q001-26; C12Q001-28; G01N021-78; G01N033-487;
          G01N033-49; G01N033-50; G01N033-68
          1361436 A UPAB: 20031223
AB
     NOVELTY - A multilayer test strip (I) comprising, a blood separation
     element for separating red blood cells from plasma, a protease layer in
     fluid communication with the blood separation element, and a ketoamine
     oxidase signal producing system layer in fluid communication with the
     protease layer.
          DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the
     following:
          (1) a measurement system for measuring an amount of glycated protein
     in a fluid sample, comprising (I), and a signal detection instrument for
     detecting signal produced on the multilayer test strip;
          (2) quantifying the amount of glycated protein in a physiological
     sample, involves applying the physiological sample to (I), detecting a
     signal produced on the test strip to quantify the amount of glycated
     protein in the physiological sample;
          (3) a kit for use in determining the concentration of glycated
     protein in a physiological sample, comprising (I), and a unit for
     obtaining a physiological sample or a control; and
          (4) a signal detection instrument having (I).
          USE - (I) is useful for determining the concentration of glycated
     protein, ketoamine group on protein and blood glucose levels.
          DESCRIPTION OF DRAWING(S) - The figure shows an exploded view of a
     multilayer reagent test strip.
     Dwg.1/3
FS
     CPI EPI
FA
MC
     CPI: B04-B04D5; B04-F04; B04-L05C; B11-B; B11-C09; D05-A02C; D05-C03C;
          D05-H09; D05-H13
     EPI: S03-E14H4
L33 ANSWER 5 OF 9 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN
     2003-810336 [76]
                        WPIX
     2004-224961 [21]
CR
DNN N2003-648816
                        DNC C2003-224927
     Test strip for measuring glucose concentration, comprises support, mesh
     and reagent matrix attached to and separated from surface of mesh by
     adhesive layer such that capillary gap is present between mesh and reagent
     matrix.
DC
     A89 B04 D16 E24 S03
     LEONG, K; RICE, E G; YU, Y S
IN
PΑ
     (LIFE-N) LIFESCAN INC
CYC
    1
PΙ
     US 6555061
                     B1 20030429 (200376)*
                                             5
                                                       G01N033-48
ADT US 6555061 B1 US 2000-684716 20001005
PRAI US 2000-684716
                          20001005
     ICM G01N033-48
IC
         6555061 B UPAB: 20040326
AB
     US
```

NOVELTY - Reagent test strip (10) for use in apparatus for measuring analyte concentration, comprises support (14) having through-hole for passing sample, mesh (12), reagent matrix (16) attached to second surface of the mesh and an adhesive (18) layer. The reagent matrix is attached to and separated from the second surface of the mesh by adhesive layer such that a capillary gap is present between the mesh and reagent matrix.

DETAILED DESCRIPTION - Reagent test strip for use in an apparatus for measuring analyte concentration in biological fluid, comprises:

- (1) a support having through-hole for passing sample of biological fluid;
- (2) a mesh, having a first surface joining the bottom surface of and covering the hole in the support;
- (3) a reagent matrix attached to second surface of the mesh, opposite the first surface, the matrix comprising:
- (i) a sample receiving surface for receiving the sample from the mesh and passing at least a portion of the sample towards a testing surface opposite to the receiving surface;
- (ii) a reagent for indicating the analyte concentration by creating at the testing surface a change in reflectance that can be related to the analyte concentration; and
 - (4) an adhesive layer.

The reagent matrix is attached to and separated from the second surface of the mesh by adhesive layer such that a capillary gap is present between the mesh and reagent matrix.

USE - The reagent test strip is useful in an apparatus for measuring the analyte concentration in a biological fluid (claimed), e.g., monitoring glucose level in whole blood.

ADVANTAGE - The method enables to obtain accurate value of analyte concentration using smaller sample size.

DESCRIPTION OF DRAWING(S) - The figure shows perspective view of the test strip.

reagent test strip 10
mesh 12
support 14
reagent matrix 16

adhesive 18

Dwg.1/2

FS CPI EPI

FA AB; GI; DCN

MC CPI: A12-V03C2; B04-B04D5; B10-A07; B11-C07B1; B12-K04A; D05-H09; E06-F01; E10-A09B2; E10-B02A1; E26-A01

EPI: S03-E04E; S03-E09E; S03-E14H1

L33 ANSWER 6 OF 9 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-801235 [75] WPIX

DNC C2003-221203

TI Test strip for determining the concentration of analyte(s) in physiological sample, has reaction zones each defined by hydrophobic barrier, and reagent composition.

B04 D16

IN YU, Y S; YU, S

PA (LIFE-N) LIFESCAN INC; (YUYS-I) YU Y S

CYC 39

DC

PI US 2003104510 A1 20030605 (200375)* 16 C12Q001-26 <--CA 2413533 A1 20030605 (200375) EN G01N033-52 <--EP 1318397 A1 20030611 (200375) EN G01N031-22

P 1318397 A1 20030611 (200375) EN G01N031-22 R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC

MK NL PT RO SE SI SK TR

JP 2003247996 A 20030905 (200375) 15 G01N033-543

KR 2003046315 A 20030612 (200375) G01N033-49

NO 2002005804 A 20030606 (200375) G01N033-52

CN 1458526 A 20031126 (200413) G01N033-52

US 6723500 B2 20040420 (200427) AU 2002302090 A1 20030619 (200461) MX 2002011970 A1 20040701 (200545) TW 2003005015 A 20031016 (200557) G01N033-52 <-G01N033-52 <-C12Q001-00 <-G01N033-531 <--

<--

C12M001-34 G01N033-48 <--

```
ADT US 2003104510 A1 US 2001-11000 20011205; CA 2413533 A1 CA 2002-2413533
     20021204; EP 1318397 A1 EP 2002-258366 20021204; JP 2003247996 A JP
     2002-352801 20021204; KR 2003046315 A KR 2002-76491 20021204; NO
     2002005804 A NO 2002-5804 20021203; CN 1458526 A CN 2002-151582 20021204;
     US 6723500 B2 US 2001-11000 20011205; AU 2002302090 A1 AU 2002-302090
     20021126; MX 2002011970 A1 MX 2002-11970 20021203; TW 2003005015 A TW
     2002-135112 20021204
PRAI US 2001-11000
                          20011205
     ICM C12M001-34; C12Q001-00; C12Q001-26; G01N031-22;
          G01N033-48; G01N033-49; G01N033-52;
          G01N033-531; G01N033-543
          C12M003-00; C12Q001-54; G01N033-53; G01N033-66
     US2003104510 A UPAB: 20031120
AB
     NOVELTY - A test strip for determining the concentration of analyte(s) in
     a physiological sample, comprising reaction zones (20-24); and a reagent
     composition present in each reaction zone, is new. Each reaction zone is
     defined by a hydrophobic barrier.
          DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:
          (1) manufacturing the reaction zones of the test strip, comprising
     positioning a thermal head in alignment with a test strip matrix, and
     actuating the thermal head in a manner to transfer a volume of
     hydrophobic composition onto the matrix; and
          (2) a kit for determining the concentration of analyte(s) in the
     physiological sample, comprising the novel test strip(s), and instructions
     for using the test strip.
          The hydrophobic composition is deposited on the matrix to
     produce the test strip comprising the reaction zones. Each zone is defined
     by the hydrophobic composition.
          USE - For determining the concentration of analyte(s) in a
     physiological sample, by applying the sample to the test strip, detecting
     a signal produced by the reaction of the reagent composition with the
     sample, and relating the detected signal to the amount of the analyte in
     the sample (claimed).
          ADVANTAGE - The invention is simple to use, accurate, precise and
     easy, and low cost to manufacture.
          DESCRIPTION OF DRAWING(S) - The drawing shows an exemplary test strip
     matrix.
          Reaction zones 20-24.
     Dwg.1/5
FS
     CPI
FΑ
     AB; GI; DCN
     CPI: B04-L01; B05-C08; B10-A07; B11-C08E3; B12-K04A;
MC
          D05-H09
L33 ANSWER 7 OF 9 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
     2001-618346 [72] WPIX
AN
     1999-336791 [28]; 2000-248299 [22]
CR
DNN N2001-461238
                       DNC C2001-185117
     Enzymatic assay reagent containing a tetrazolium dye precursor, especially
     useful for blood glucose determination, includes a nitrite salt to
     suppress interference from hemoglobin.
DC
     A89 B04 D16 E24 S03
     OUYANG, T; YU, Y S; SIU YU, Y
IN
     (LIFE-N) LIFESCAN INC; (JOHJ) JOHNSON & JOHNSON; (OUYA-I) OUYANG T;
PΑ
     (YUYS-I) YU Y S
CYC
   37
                    A2 20010905 (200172)* EN
                                                      C12Q001-54
PΤ
     EP 1130111
                                                13
         R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
            RO SE SI TR
     AU 2001023210 A 20010830 (200172)
                                                      C12Q001-26
                                                                      <--
                                                      C120001-54
                     A1 20010825 (200172)
                                           EN
     CA 2337562
                                                                      <--
                    A 20010827 (200172)
A 20011023 (200202)
     NO 2001000939
                                                      G01N000-00
                                                                      <--
     JP 2001292795
                                                41
                                                      C12Q001-26
     BR 2001002467
                    A 20011204 (200203)
                                                      G01N033-52
                                                                      <--
                                                      C12Q001-54
                     A 20011017 (200213)
     CN 1317575
                                                                      <--
     KR 2001085564 A 20010907 (200218)
                                                      C12Q001-26
                                                                      <--
```

```
A 20021030 (200282)
     ZA 2001001543
                                                34
                                                      C12Q000-00
     MX 2001002062 A1 20020901 (200373)
                                                      C12Q001-54
                                                                     <--
                                                      G01N033-553
     US 6656697
                    B1 20031202 (200379)
     SG 100621
                    A1 20031226 (200414)
                                                      C120001-54
                                                                     <--
                    A1 20040318 (200421)
     US 2004053352
                                                      C12Q001-26
                                                                     <--
                     B1 20041006 (200466)
     EP 1130111
                                          EN
                                                      C12Q001-54
                                                                     <--
         R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
                                                      C12Q001-54
     DE 60106110
                    E 20041111 (200474)
                                                                     <--
     ES 2230240
                    T3 20050501 (200532)
                                                      C12Q001-54
                                                                     <--
     US 2005112712 A1 20050526 (200535)
                                                      C12Q001-54
                                                                     <--
     AU 782774
                     B2 20050825 (200562)
                                                      C12Q001-26
                                                                     <--
                    B 20050105 (200566)
     MX 225355
                                                      C12Q001-26
ADT EP 1130111 A2 EP 2001-301670 20010223; AU 2001023210 A AU 2001-23210
     20010223; CA 2337562 A1 CA 2001-2337562 20010222; NO 2001000939 A NO
     2001-939 20010223; JP 2001292795 A JP 2001-49366 20010223; BR 2001002467 A
     BR 2001-2467 20010223; CN 1317575 A CN 2001-116251 20010224; KR 2001085564
     A KR 2001-9448 20010224; ZA 2001001543 A ZA 2001-1543 20010223; MX
     2001002062 A1 MX 2001-2062 20010226; US 6656697 B1 CIP of US 1998-161876
     19980928, CIP of US 1999-282083 19990330, US 2000-513071 20000225; SG
     100621 A1 SG 2001-1038 20010222; US 2004053352 A1 CIP of US 1998-161876
     19980928, CIP of US 1999-282083 19990330, Div ex US 2000-513071 20000225,
     US 2003-663217 20030915; EP 1130111 B1 EP 2001-301670 20010223; DE
     60106110 E DE 2001-00106110 20010223, EP 2001-301670 20010223; ES 2230240
     T3 EP 2001-301670 20010223; US 2005112712 A1 CIP of US 1998-161876
     19980928, CIP of US 1999-282083 19990330, Div ex US 2000-513071 20000225,
     Div ex US 2003-663217 20030915, US 2004-990684 20041116; AU 782774 B2 AU
     2001-23210 20010223; MX 225355 B MX 2001-2062 20010226
FDT US 6656697 B1 CIP of US 5902731, CIP of US 6200773; US 2004053352 A1 CIP
     of US 5902731, CIP of US 6200773, Div ex US 6656697; DE 60106110 E Based
     on EP 1130111; ES 2230240 T3 Based on EP 1130111; US 2005112712 A1 CIP of
     US 5902731, CIP of US 6200773, Div ex US 6656697; AU 782774 B2 Previous
     Publ. AU 2001023210
PRAI US 2000-513071
                          20000225; US 1998-161876
                                                         19980928;
     US 1999-282083
                          19990330; US 2003-663217
                                                         20030915;
     US 2004-990684
                          20041116
IC
     ICM C12Q000-00; C12Q001-26; C12Q001-54; G01N000-00;
          G01N033-52; G01N033-553
         C12Q001-34; G01N021-78; G01N033-64; G01N033-66; G01N033-72
AΒ
          1130111 A UPAB: 20051014
     NOVELTY - Reagent (I) for measuring the concentration of an analyte in a
     hemoglobin-containing biological fluid comprises:
          (A) an analyte-specific flavin dependent enzyme;
          (B) a tetrazolium dye precursor;
          (C) an electron transfer agent; and
          (D) a nitrite salt.
          DETAILED DESCRIPTION - Reagent (I) for measuring the concentration of
     an analyte in a hemoglobin-containing biological fluid comprises:
          (a) an analyte-specific flavin dependent enzyme that either has a
     flavin bound to it or is present together with flavin mononucleotide (FMN)
     or flavin adenine dinucleotide (FAD);
          (b) a tetrazolium dye precursor;
          (c) an electron transfer agent; and
          (d) a nitrite salt.
          INDEPENDENT CLAIMS are also included for the following:
          (1) a dry reagent strip for measuring the concentration of an analyte
     in a hemoglobin-containing biological fluid, comprising a support layer
     bearing a test pad coated with (I);
          (2) a dry reagent strip for measuring the concentration of glucose in
     a hemoglobin-containing biological fluid, comprising:
          (a) a bottom support layer;
          (b) a middle test pad having a coating comprising glucose oxidase
     that has a flavin bound to it, a tetrazolium dye precursor and phenazine
```

(3) a dry reagent strip for measuring the concentration of glucose in

(c) a bibulous top layer coated with a nitrite salt;

a hemoglobin-containing biological fluid, comprising:

methosulfate (PMS) or a PMS analog; and

```
(a) a bottom support layer;
          (b) a middle test pad having a coating comprising a flavin-dependent
     enzyme that does not have a flavin bound to it, FMN or FAD, a tetrazolium
     dye precursor and PMS or a PMS analog; and
          (c) a bibulous top layer coated with a nitrite salt.
          USE - The reagent is especially useful for determining blood glucose
     levels, preferably as a coating on a dry test strip.
          ADVANTAGE - The nitrite overcomes interference from hemoglobin.
     Dwg.0/6
FS
     CPI EPI
FA
     AB; DCN
MC
     CPI: A12-L04B; A12-V03C2; B04-B04D5; B04-L03A; B05-B01M; B05-C03; B06-H;
          B10-A07; B11-C07B1; B12-K04A; D05-A01A2; D05-A01B1;
          D05-H09; E25-E01
     EPI: S03-E14H
    ANSWER 8 OF 9 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
L33
AN
     2000-248299 [22]
                       WPIX
     1999-336791 [28]; 2001-618346 [72]
CR
                       DNC C2000-075259
DNN N2000-185899
     Reagent for measuring the concentration of an analyte, e.g.
     beta-hydroxybutyrate or glucose, in a haemoglobin-containing biological
     fluid is based on a tetrazolium dye.
DC
     B04 D16 S03
    OUYANG, T; YU, Y S; SIU YU, Y; SIU, Y Y; TIANMEI, O
IN
     (LIFE-N) LIFESCAN INC; (JOHJ) JOHNSON & JOHNSON
PA
CYC 39
PΙ
    EP 990706
                     A1 20000405 (200022)* EN 14
                                                      C120001-32
         R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
            RO SE SI
     AU 9944743
                    A 20000330 (200026)
                                                      C120001-32
     JP 2000093199 A 20000404 (200027)
                                                      C12Q001-32
                                                                     <--
                    A 20000329 (200027)
                                                      C12Q001-32
     NO 9902026
                                                                     <--
     BR 9901431
                    A 20000509 (200033)
A 20000405 (200034)
                                                      C12Q001-32
                                                                     <--
     CN 1249349
                                                      C12Q001-32
                                                                     <--
     CA 2270334
                    A1 20000328 (200036)
                                                      C120001-54
                                                                     <--
                                          EN
                    A 20001227 (200103)
     ZA 9902952
                                                27
                                                      G01N000-00
     KR 2000022630 A 20000425 (200107)
                                                      G01N033-72
     US 6200773
                    B1 20010313 (200120)
                                                      C12Q001-32
                    A1 20000801 (200137)
                                                      G01N033-72
     MX 9904096
                    A1 20010821 (200158)
     SG 82610
                                                      C12Q001-32
                    B1 20020904 (200266) EN
     EP 990706
                                                      C12Q001-32
                                                                     <--
        R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE
     DE 69902730 E 20021010 (200274)
                                                      C12Q001-32
                                                                     <--
                    T3 20030316 (200325)
     ES 2183482
                                                      C12Q001-32
                                                                     <--
                    B 20030710 (200355)
B 20021209 (200413)
                                                      C12Q001-32
     AU 763065
                                                                     <--
     MX 211939
                                                     C12M001-40
                    C2 20040227 (200425)
                                                      G01N033-50
    RU 2225005
                                                                     <--
                    A 20040620 (200446)
     IL 129594
                                                      G01N033-50
                                                                     <--
     TW 594009
                    A 20040621 (200506)
                                                      G01N033-50
                                                                     <--
ADT EP 990706 A1 EP 1999-303260 19990427; AU 9944743 A AU 1999-44743 19990826;
     JP 2000093199 A JP 1999-128731 19990510; NO 9902026 A NO 1999-2026
     19990428; BR 9901431 A BR 1999-1431 19990511; CN 1249349 A CN 1999-108090
     19990508; CA 2270334 A1 CA 1999-2270334 19990428; ZA 9902952 A ZA
     1999-2952 19990426; KR 2000022630 A KR 1999-16786 19990511; US 6200773 B1
     CIP of US 1998-161876 19980928, US 1999-282083 19990330; MX 9904096 A1 MX
     1999-4096 19990430; SG 82610 A1 SG 1999-2107 19990503; EP 990706 B1 EP
     1999-303260 19990427; DE 69902730 E DE 1999-602730 19990427, EP
     1999-303260 19990427; ES 2183482 T3 EP 1999-303260 19990427; AU 763065 B
    AU 1999-44743 19990826; MX 211939 B MX 1999-4096 19990430; RU 2225005 C2
     RU 1999-109103 19990427; IL 129594 A IL 1999-129594 19990426; TW 594009 A
     TW 1999-110056 19990616
    US 6200773 B1 CIP of US 5902731; DE 69902730 E Based on EP 990706; ES
     2183482 T3 Based on EP 990706; AU 763065 B Previous Publ. AU 9944743
PRAI US 1999-282083 19990330; US 1998-161876 19980928
    ICM C12M001-40; C12Q001-32; C12Q001-54; G01N000-00;
```

```
G01N033-50; G01N033-72
     ICS C12M001-34; G01N033-52; G01N033-573; G01N033-64;
          G01N033-66; G01N033-68
           990706 A UPAB: 20050126
AB
     EP
     NOVELTY - A reagent for measuring analyte concentration in a haemoglobin-containing biological fluid, comprises an analyte specific
     dehydrogenase enzyme, nicotinamide adenine dinucleotide (NAD), an NAD
     derivative, pyrrolo-quinoline quinone (PQQ) or a PQQ derivative, a
     tetrazolium dye precursor, a diaphorase enzyme or its analogue, and a
     nitrite salt.
          DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the
     following:
          (1) a dry reagent strip for determining the presence and amount of an
     analyte in a haemoglobin-containing biological fluid comprising a reagent
     coated test pad on a support layer;
          (2) a dry reagent strip for determining the presence and amount of an
     analyte in a haemoglobin-containing biological fluid comprising a top
     layer overlaying a test pad on a support layer, a first part of the
     reagent is on the support layer, and a second part is on the top and/or
     support layer; and
          (3) a dry reagent test strip for determining the presence and amount
     of an analyte in a haemoglobin-containing biological fluid comprises
          (a) a support layer;
          (b) a test pad having a coating comprising an analyte specific
     dehydrogenase enzyme, NAD, an NAD derivative, PQQ or a PQQ derivative, (a
     tetrazolium dye precursor, and a diaphorase enzyme or its analogue; and
          (c) a bibulous top layer coated with a nitrite salt.
          USE - The reagent is useful for measuring the concentration of an
     analyte e.g. glucose or beta -hydroxybutyrate in a haemoglobin-containing
     biological fluid, e.g. whole blood.
     Dwg.0/7
FS
     CPI EPI
FA
     AB; DCN
     CPI: B04-B04D5; B04-L01; B04-L02; B04-L03D; B10-A07; B10-C04D; B11-C07B;
MC
          B12-K04; D05-A02A; D05-H09
     EPI: S03-E14H
    ANSWER 9 OF 9 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
L33
     1992-090281 [12] WPIX
1991-067222 [10]; 1996-435778 [44]; 1997-147570 [14]; 1997-235179 [21];
AN
CR
     1998-147239 [14]; 1998-350262 [31]
                        DNC C1992-041589
DNN N1992-067804
     Reagent strip for assaying whole blood samples especially for glucose -
ΤI
     comprising a porous matrix uniformly impregnated with a separation coating and
     a testing reagent.
     A89 B04 D16 J04 R16 S03
DC
     KISER, E J; RICE, E G; TOMASCO, M F
IN
     (LIFE-N) LIFESCAN INC; (KISE-I) KISER E J; (LIFE-N)
DΔ
     LIFESCAN
CYC
    14
PΙ
     EP 475692
                     A 19920318 (199212)*
                                                 17
         R: BE CH DE FR GB IT LI LU NL SE
                  A 19920312 (199220)
                                                 39
                                                        G01N033-49
                                                                       <--
     AU 9183618
                     A 19920307 (199224)
                                                        G01N033-66
     CA 2050677
                                                        C12Q001-54
                                                                       <---
     US 5306623
                     A 19940426 (199416)
                     A 19940329 (199417)
                                                        C120001-54
                                                                       <---
     JP 06086696
                                                 13
                     В
                        19950316 (199518)
                                                        G01N033-52
     AU 657486
                                                                       <--
                     B1 19950531 (199526)
                                                       G01N033-52
     EP 475692
                                            EN
                                                 18
                                                                       <---
         R: BE CH DE FR GB IT LI LU NL SE
     DE 69110098
                   E 19950706 (199532)
                                                       G01N033-52
                                                                       <--
                                                       C120001-54
                     B2 20011022 (200169)
                                                 12
                                                                       <--
     JP 3220486
                     C 20030408 (200329)
                                           EN
                                                        G01N033-66
     CA 2050677
ADT EP 475692 A EP 1991-308178 19910906; AU 9183618 A AU 1991-83618 19910904;
     CA 2050677 A CA 1991-2050677 19910904; US 5306623 A CIP of US 1989-399055
     19890828, CIP of US 1990-578364 19900906, US 1991-736537 19910726; JP
     06086696 A JP 1991-250308 19910904; AU 657486 B AU 1991-83618 19910904; EP
```

```
475692 B1 EP 1991-308178 19910906; DE 69110098 E DE 1991-610098 19910906,
     EP 1991-308178 19910906; JP 3220486 B2 JP 1991-250308 19910904; CA 2050677
     C CA 1991-2050677 19910904
FDT AU 657486 B Previous Publ. AU 9183618; DE 69110098 E Based on EP 475692;
     JP 3220486 B2 Previous Publ. JP 06086696
PRAI US 1991-736537
                          19910726; US 1990-578364
                                                          19900906;
     US 1989-399055
                          19890828
    DE 1498601; EP 256806; EP 415679; US 3552928; EP 336483
REP
     ICM C12Q001-54; G01N033-49; G01N033-52;
          G01N033-66
     ICS
          C12Q001-00; C12Q001-26; C12Q001-28; G01N021-00; G01N021-78
           475692 A UPAB: 20030505
     EP
AB
     Dwg.1,2/6
          The separation coating may be a material selected from chitosan,
     hydroxypropyl cellulose, hydroxyethyl cellulose, polyvinyl cellulose,
     polyacrylic acid polymer, polyethylene glycol, polyvinyl sulphonic acid,
     polystyrene sulphonic acid, or methylvinylether and maleic anhydride
     copolymer or polyethylene glycol-15 tallowamine. The matrix may be a
     hydrophilic or hydrophobic anisotropic polysulphone or an
     antistotropic polyester membrane.
          The test reagent may comprise glucose oxidase (GO), horseradish
     peroxidase (HRP) and an indicator, e.g. alizarin cyanin green;
     bromopyrogallol red, anazolene sodium, pyrogallol-sulphophthalein or
     2,3-azino-di-(3)ethylbenzthiazoline sulphonate.
          Also claimed is a glucose measurement mechanism having a separating system
     and a testing reagent system embedded in a matrix, the matrix being formed
     from a porous anisotropic membrane.
          USE/ADVANTAGE - The test strip can separate coloured components from
     whole blood so that changes in colour of the testing reagent can be used
     to accurately measure an analyte such as glucose.
     1,2/6
     CPI EPI
FS
FΑ
     AB; GI; DCN
     CPI: A12-V03C2; B04-B02C3; B04-B04D5; B04-C03; B06-A01; B06-A03; B06-B02;
MC
          B06-F01; B10-A06; B10-A07; B10-A16; B11-C07B1; B12-K04A;
          D05-A02A; D05-H09; J04-B01
     EPI: S03-E14H1
=> d all abeq abex tech 134 tot
L34 ANSWER 1 OF 4 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
     1994-265967 [33]
                        WPIX
AN
                        DNC C1994-121643
DNN
    N1994-209257
     Determn. the number of living microorganisms in a sample solution - by
ΤT
     filtering the sample soln .through a hydrophobic filtrationmembrane,
     spraying a solution of ATP-extracting solution, etc..
     A89 B04 D13 D15 D16 D21 J04 S03 U11
DC
     SETO, S
ΤN
     (MIFI) NIHON MILLIPORE KK; (MIFI) NIPPON MILLIPORE KK; (MIFI) NIPPON MILLIPORE KOGYO KK; (MIFI) MILLIPORE CORP
PA
CYC
     EP 612850
                     A2 19940831 (199433)* EN
                                                 12
                                                       C12Q001-06
                                                                       <--
PΙ
         R: DE FR GB
                                                  8
                                                        C12Q001-06
     JP 06237793
                     A 19940830 (199439)
                                                       C12Q001-06
                                                                       <--
     EP 612850
                     A3 19950628 (199611)
     US 5766868
                     A 19980616 (199831)
                                                        C12Q001-66
                                                                       <--
     EP 612850
                     B1 19990811 (199936) EN
                                                        C12Q001-06
                                                                       <--
         R: DE FR GB
                                                        C12Q001-06
                     E 19990916 (199944)
                                                                       <--
     DE 69419948
     JP 3228812
                     B2 20011112 (200174)
                                                  R
                                                       C120001-06
ADT EP 612850 A2 EP 1994-102084 19940210; JP 06237793 A JP 1993-44397
     19930210; EP 612850 A3 EP 1994-102084 19940210; US 5766868 A Cont of US
     1994-193680 19940208, US 1995-443654 19950518; EP 612850 B1 EP 1994-102084
     19940210; DE 69419948 E DE 1994-619948 19940210, EP 1994-102084 19940210;
```

```
JP 3228812 B2 JP 1993-44397 19930210
FDT DE 69419948 E Based on EP 612850; JP 3228812 B2 Previous Publ. JP 06237793
PRAI JP 1993-44397
                          19930210
REP No-SR.Pub; 1.Jnl.Ref; EP 465987; EP 529084; EP 563858; JP 04030798; WO
TC
     ICM C12Q001-06; C12Q001-66
         B01D061-00; C12Q001-24; G01N021-76; G01N021-77
     TCS
           612850 A UPAB: 19941010
AB
     Determin. the number of living microorganisms in a sample solution suspected
     of containing such microorganisms comprises: (1) filtering the sample solution
     through a hydrophobic filtration membrane to entrap the microbes
     with hydrophobic barriers; (2) spraying a solution of an
     ATP-extracting reagent onto the microbe-containing membrane to extract ATP
     from the microbes; (3) spraying a solution of a luminescence-inducing reagent
     onto the membrane to induce luminescence; and (4) measuring the level of
     luminescence.
          USE - The method is used to determine a viable count or number of
     viable microbes in industrial water, raw materials, intermediates, and
     prods. processed in the food and beverage, pharmaceutical, cosmetic and
     microelectronic industries.
          In an example, a series of 0.5 micro-1 aqueous ATP solns. each containing ATP
     (10-12g, 5x10-13g, or 5x10-14g) were prepared. Hydrophobic
     filtration membranes were spotted with one of the above solns., air dried,
     and subjected to fine spray of luminescnece-inducing regent, using a
     pressurised sprayer. After luminescence was induced, the filtration
     membranes were placed into a bioluminescnece image analysis system and the
     luminescence of the bright spots were measured.
     Dwq.1/2
FS
     CPI EPI
FA
     AB; GI; DCN
     CPI: A12-L04B; B04-B03B; B04-C03B; B04-C03D; B04-F01; B04-F10; B04-L03A;
MC
          B06-D06; B11-C07B4; B11-C08D3; B12-K04; D03-H01G; D04-A01F;
     D04-A01H; D05-A02A; D05-H09; D08-B; J04-B01
EPI: S03-E04D; S03-E14B; S03-E14H; S03-F06C; U11-C15B; U11-F01
L34 ANSWER 2 OF 4 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
                        WPIX
AN
     1993-182693 [22]
     1990-038331 [06]
CR
DNN
    N1993-140411
                        DNC C1993-080975
     Reaction cartridge for semi-automated biological sample analyser - carries
ΤI
     two-dimensional array of isolated test sites in solid phase binding layer.
DC
     A89 B04 P73 S03
     DEFREESE, J D; DURLEY, B A; MERKH, C W
IN
     (ABBO) ABBOTT LAB; (CHAD) CHAKAKI DYEING KK
PA
CYC
                     A1 19930527 (199322)* EN
                                                85
                                                       G01N033-543
PΤ
     WO 9310454
        RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL SE
         W: CA JP
                                                       G01N033-545
                     A 19940125 (199405)
                                                 32
     US 5281540
     JP 07501149
                     W 19950202 (199514)
                                                       G01N033-543
                     A1 19950426 (199521)
     EP 649534
                                           EN
                                                       G01N033-543
         R: BE CH DE ES FR GB IT LI
                                                       G01N033-543
     EP 649534
                     A4 19960522 (199643)
                                                       G01N033-543
     EP 649534
                     B1 19990811 (199936)
                                           EN
        R: BE CH DE ES FR GB IT LI
                     E 19990916 (199944)
                                                       G01N033-543
     DE 69229801
                     T3 19991101 (199953)
     ES 2135419
                                                       G01N033-543
ADT WO 9310454 A1 WO 1992-US9362 19921029; US 5281540 A CIP of US 1988-227272
     19880802, US 1991-796942 19911122; JP 07501149 W WO 1992-US9362 19921029,
     JP 1993-509284 19921029; EP 649534 A1 EP 1992-925045 19921029, WO
     1992-US9362 19921029; EP 649534 A4 EP 1992-925045
                                                                ; EP 649534 B1
     EP 1992-925045 19921029, WO 1992-US9362 19921029; DE 69229801 E DE
     1992-629801 19921029, EP 1992-925045 19921029, WO 1992-US9362 19921029; ES
     2135419 T3 EP 1992-925045 19921029
FDT US 5281540 A CIP of US 5075077; JP 07501149 W Based on WO 9310454; EP
```

649534 Al Based on WO 9310454; EP 649534 Bl Based on WO 9310454; DE

```
69229801 E Based on EP 649534, Based on WO 9310454; ES 2135419 T3 Based on
     EP 649534
                         19911122; US 1988-227272
PRAI US 1991-796942
                                                         19880802
REP US 4301115; US 4776904; US 4797259; 1.Jnl.Ref; EP 353591
IC
     ICM G01N033-543; G01N033-545
     ICS
         B32B031-20; G01N033-50; G01N033-544; G01N033-58
ΔR
    WΩ
         9310454 A UPAB: 19991215
     Device supports a number of seleted capture reagents each reactive with a
     specific assay binding component of interest in a biological sample, and
     includes a first layer of capture reagent binding material and a second
     layer of non-absorbent substrate material below the first layer. A number
     of test sites are formed in the first layer each adapted to bind a
     selected capture reagent. Each test site is isolated from every other site
     for confining capture reagent applied to one of the sites. The isolation
     is effected by hydrophobic barriers disposed about the
     test sites.
          A test array (82) pref. contains circular or annular depressions (89)
     creating isolated test sites (84) composed of binding layer material (83)
     encircled by a moat (99) of air space.
          USE - The device is used with a semi-automated biological analyser
     for carrying out assays on a series of different biological samples. It is
     especially for the simultaneous assay of biological fluid samples for human IgE
     class antibodies specific to a preselected panel of allergens.
     Dwg. 2/17
     Dwg. 2/17
     Dwg. 2/17
    CPI EPI GMPI
FS
FA
     AB; GI; DCN
     CPI: A12-W11L; B04-B04C6; B04-C02A3; B04-C03D; B11-C07A7; B12-K04
MC
     EPI: S03-E14H4; S03-E15
          5281540 A UPAB: 19940315
ABEQ US
     Semi-automated biological sample analyser, partic. to identify allergic
     reactions, includes a reaction cartridge with a reaction well contg. a
     test array (82) with circular or annular depressions (89) creating a
     number of isolated test sites (84) of binding material (83), bonded (87)
     to a non-absorbent substrate (85). Binding layer is of nitrocellulose or
     nylon and substrate is of polyester film. Test sites are approx. 0.1
     inches dia ...
          USE/ADVANTAGE - Simultaneous panel of tests on a number of patient
     samples. Number of components can be tested with single addn. of patient
     sample.
     Dwg.8A/17
L34 ANSWER 3 OF 4 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN
     1993-171852 [21]
                       WPIX
DNN N1993-132030
                        DNC C1993-076292
    Vacuum blood collecting tube - has closed-end tube body comprising
     polyethylene terephthalate or polyester with inside wall coated with
     hydrophilic silicone.
DC
    A96 B04 P31 S03
     (NISS-N) NISSHO CORP
PA
CYC 1
     JP 05103772
                   A 19930427 (199321)*
                                                      A61B005-14
ADT JP 05103772 A JP 1991-298488 19911016
PRAI JP 1991-298488
                         19911016
IC
     ICM A61B005-14
     ICS G01N033-48
     JP 05103772 A UPAB: 19931116
     In a vacuum blood collecting tube consisting of sealing member and
     closed-end tube body, the material of the closed-end tube body includes
     99-92 weight% of polyethylene terephthalate or polyester containing as the
     principal component, polyethylene terephthalate, and 1-8 weight% of polyamide
     containing xylylene gp.; further, including 1-100 ppm of transition metal.
     Hydrophilic silicone coating is provided on the inside wall of the tube;
     and coating of blood coagulating agent is provided on the hydrophilic
```

silicone coating.

Rubber plug is mounted to the opening of the closed-end tube body, and the inside of the closed-end tube body is held in specified evacuated condition to suck required amount of blood sample. To hold the evacuated condition gas barrier properties are required for the closed-end tube body. It is necessary to add blood coagulating agent to shorten the time for coagulation of blood when separating centrifugally the blood into plasma and blood corpuscles. With this blood collecting tube, the evacuated condition scarcely changes with time. Further, because of the presence of the blood coagulating agent coating on the hydrophobic silicon coating, the blood coagulating properties are increased.

USE/ADVANTAGE - The blood collecting tube is used in biochemical tests, blood serum tests, blood tests, blood sugar measurement, etc., to collect sample blood.

Dwg.0/0

FS CPI EPI GMPI

FA AB; DCN

MC CPI: A05-E01D; A05-E04E; A05-F; A07-A03C; A11-C04B2; A12-V03B; B04-B04D5; B04-C03D; B11-C08; B12-K04A

EPI: S03-E13B; S03-E14H1

L34 ANSWER 4 OF 4 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN

AN 1988-106828 [16] WPIX

DNN N1988-081068 DNC C1988-047927

TI Device for detecting Chlamydia and Neisseria antigen - includes matrix layer containing poly tetra fluoroethylene microparticles for efficient antigen retention.

DC A96 B07 F04 J04 S03

IN VARITEK, V A

PA (ABBO) ABBOTT LAB

CYC 13

A 19880420 (198816) * EN PΤ EP 264036 R: AT BE CH DE ES FR GB IT LI NL AU 8779482 A 19880421 (198824) A 19880817 (198839) JP 63198969 CA 1306415 C 19920818 (199239) G01N033-52 B1 19930630 (199326) EN G01N033-52 EP 264036 14 <--R: AT BE CH DE ES FR GB IT LI NL DE 3786388 G 19930805 (199332) G01N033-52 <--T3 19931216 (199403) G01N033-52 ES 2042526 <--JP 07104354 B2 19951113 (199550) 7 G01N033-571 JP 08105898 A 19960423 (199626) G01N033-571 4 JP 2541793 B2 19961009 (199645) 3 G01N033-571

ADT EP 264036 A EP 1987-114415 19871002; JP 63198969 A JP 1987-262566 19871015; CA 1306415 C CA 1987-549226 19871014; EP 264036 B1 EP 1987-114415 19871002; DE 3786388 G DE 1987-3786388 19871002, EP 1987-114415 19871002; ES 2042526 T3 EP 1987-114415 19871002; JP 07104354 B2 JP 1987-262566 19871015; JP 08105898 A Div ex JP 1987-262566 19871015, JP 1995-96678 19871015; JP 2541793 B2 Div ex JP 1987-262566 19871015, JP 1995-96678 19871015

FDT DE 3786388 G Based on EP 264036; ES 2042526 T3 Based on EP 264036; JP 07104354 B2 Based on JP 63198969; JP 2541793 B2 Previous Publ. JP 08105898 PRAI US 1986-919396 19861016

REP A3...8932; EP 119622; EP 173375; EP 200381; EP 217403; EP 269876; No-SR.Pub; US 4042329; US 4338094

IC ICM G01N033-52

ICS C12M001-34; G01N033-545; G01N033-546; G01N033-571

AB EP 264036 A UPAB: 19930923

Solid phase device for determining presence of Chlamydia trachomatis or Neisseria gonorrhoeae antigen comprises a planar layer of a porous, fibrous matrix material which retains and immobilises numerous, spherical particles of PTFE having average dia. 0.1-10 microns. In use, a test sample is applied to one surface of the material and at least a portion of it will pass through to the opposite surface.

The device also includes (1) a filter layer, applied over the sample-receiving surface of the matrix; (2) an absorbent underneath the

opposite surface and (3) a barrier layer, between absorbent and matrix, to prevent fluid retained by (2) returning to the matrix.

ADVANTAGE - The PTFE particles bind antigen more effectively than other microparticles, especially important as sample volume and antigen concentration

are

generally low. The particles are resistant to strong acids and bases, and most organic solvents; are stable at -240 to 260 deg.C, and since they are hydrophobic absorb very little water.

1/5

FS CPI EPI

FA AB; GI; DCN

MC CPI: A04-E08; A12-V03C2; B04-B04C1; B11-C07A4; B11-C07B1; B12-K04A4; F05-A06E; J04-B01; J04-C04

EPI: S03-E14H4

ABEQ EP 264036 B UPAB: 19931116

A solid-phase assay device (10) useful in a binding assay for determining the presence of an analyte in a sample, the device comprising a substantially planar layer (12) of a material having a porous matrix of fibres and a plurality of substantially spherical, solid particles having an average diameter of from 0.1 to 10 microns the particles being retained and immobilized within said matrix upon the fibres, the substantially planar layer (12) having a first, sample-contacting surface (12a) and a second surface (12b) opposed to the first surface such that, when the device is in use in the performance of the assay, at least a portion of the sample contacting the first surface (12a) passes through the substantially planar layer to the second surface (12b), characterised in that said solid particles consist essentially of polytetrafluoroethylene capable of directly binding Chlamydia trachomatis or Neisseria gonorrhoeae.

Dwg.1/5

=> b home FILE 'HOME' ENTERED AT 10:23:34 ON 21 OCT 2005

=>